

Appendices

	<i>Appendices</i>
Appendix A: References	631
Appendix B: Acronyms	641
Appendix C: Glossary of Terms	645
Appendix D: Practice-to-Goal Mappings for People CMM Process Areas	663
Appendix E: Change History	713

Appendix A: References

People CMM References

- Appleby 00** Appleby, A. & Mavin, S. “Innovation not imitation: human resource strategy and the impact on world-class status.” *Total Quality Management* 11, 4-6 (2000): S554-S561.
- Athey 99** Athey, T. R. and Orth, M. S. “Emerging Competency Methods for the Future.” *Human Resource Management* 38, 3 (Fall 1999): 215-226.
- Baldrige 01** Baldrige National Quality Program. *2001 Criteria for Performance Excellence—Business*. Gaithersburg, MD: Baldrige National Quality Program, National Institute of Standards and Technology, Technology Administration, U.S. Dept of Commerce, 2001.
- Bate 95** Bate, R.; Kuhn, D.; Wells, C.; Armitage, J.; Clark, G.; Cusick, K.; Garcia, S.; Hanna, M.; Jones, R.; Malpass, P.; Minnich, I.; Pierson, H.; Powell, T.; & Reichner, A. *A Systems Engineering Capability Maturity Model, Version 1.1* (CMU/SEI-95-MM-003, ADA 303318). Pittsburgh, PA: Software Engineering Institute, Carnegie Mellon University, 1995.
- Becker 96** Becker, B. & Gerhart, B. “The Impact of Human Resource Management on Organizational Performance: Progress and Prospects.” *Academy of Management Journal* 39, 4 (1996): 779-801.
- Becker 98** Becker, B. E. & Huselid, M. A. “High Performance Work Systems and Firm Performance: A Synthesis of Research and Managerial Implications.” In *Research in Personnel and Human Resources Management Vol. 16*, Gerald R. Ferris (ed.), (Greenwich, CT: JAI Press, 1998): 53-101.
- Becker 01** Becker, B. E.; Huselid, M. A.; & Ulrich, D. *The HR Scorecard: Linking People, Strategy, and Performance*. Boston, MA: Harvard Business School Press, 2001.

References

- Billings 94** Billings, C.; Clifton, J.; Kolkhorst, B.; Lee, E.; & Wingert, W.B. "Journey to a Mature Software Process." *IBM Systems Journal* 33, 1 (1994): 46-61.
- Boehm 81** Boehm, B. *Software Engineering Economics*. Englewood Cliffs, NJ: Prentice-Hall, 1981.
- Boehm 87** Boehm, B. "Increasing software productivity." *IEEE Computer* 20, 9 (1987): 43-57.
- Boehm 00** Boehm, B., et al. *Software Cost Estimation with COCOMO II*. Upper Saddle River, NJ: Prentice Hall, 2000.
- Brown 00** Brown, J. S. & Duguid, P. *The Social Life of Information*. Boston: Harvard Business School Press, 2000.
- Cascio 00** Cascio, W. F. *Costing Human Resources: The Financial Impact of Behavior in Organizations (4th Ed.)*. Cincinnati, OH: South-Western College Publishing, 2000.
- CEPAA 97** CEPAA - Council on Economic Priorities Accreditation Agency. *SA 8000: International Standard: Social Accountability 8000*. New York: Council on Economic Priorities Accreditation Agency, 1997.
- Chaffee 96** Chaffee, M. & Gunning, K. "Putting the People CMM into Practice." *The SEI Software Engineering Symposium: Achieving Maturity Through Technology Adoption (September 9-12, 1996, Pittsburgh, Pennsylvania)*. Pittsburgh, PA: Software Engineering Institute, Carnegie Mellon University, 1996.
- CMMI 00** CMMI Product Development Team. *CMMISM for Systems Engineering/Software Engineering/Integrated Product and Process Development, Version 1.02, Staged Representation (CMMI-SE/SW/IPPD, V1.02, Staged. Technical Report CMU/SEI-2000-TR-030)*. Pittsburgh, PA: Software Engineering Institute, Carnegie Mellon University, 2000.
- Crane 01** Crane, S. "India's Most Wanted: As the global war for IT talent heats up, CFOs on the subcontinent are fighting to stem their losses." *CFO Asia*, December 2000-January 2001. [online]. Available WWW <URL: <http://www.cfoasia.com/archives/200012-38.htm>>
- Crosby 79** Crosby, P. B. *Quality is Free: The Art of Making Quality Certain*. New York: McGraw-Hill, 1979.

References

- Curtis 81** Curtis, B. "Substantiating programmer variability." *Proceedings of the IEEE* 69, 7 (1981): 846.
- Curtis 88** Curtis, B., Krasner, H., & Iscoe, N. "A field study of the software design process for large systems." *Communications of the ACM* 31, 11 (1988): 1268-1287.
- Curtis 90** Curtis, B. "Managing the Real Leverage in Software Productivity and Quality." *American Programmer* 4 (August 1990): 4-14.
- Curtis 95** Curtis, Bill; Hefley, William E.; & Miller, Sally. *People Capability Maturity Model (CMU/SEI-95-MM-002)*. Pittsburgh, PA: Software Engineering Institute, Carnegie Mellon University, September 1995.
- Curtis 00** Curtis, B. & Thorhauge, T. "People CMM: current benefits and future directions." *Proceedings of the European SEPG 2000 Conference*. Milton Keynes, UK: ESPI Foundation, 2000.
- Davenport 99** Davenport, T. O. *Human Capital: What It Is and Why People Invest It*. San Francisco: Jossey Bass, 1999.
- Delaney 96** Delaney, J. T. & Huselid, M. A. "The Impact of Human Resource Management Practices on Perceptions of Organizational Performance." *Academy of Management Journal* 39, 4 (1996): 949-969.
- Dunaway 96** Dunaway, D. & Masters, S. *CMM-Based Appraisal for Internal Process Improvement (CBA IPI): Method Description* (Technical Report CMU/SEI-96-TR-007, ADA 307934). Pittsburgh, PA: Software Engineering Institute, Carnegie Mellon University, 1996.
- EFQM 99** European Foundation for Quality Management. *The EFQM Excellence Model*. Brussels, Belgium, 1999.
- Ehrbar 98** Ehrbar, A. *EVA: The Real Key to Creating Wealth*. New York: John Wiley & Sons, 1998.
- Embar 01** Embar, C. "The State of Software Development in India." *Crosstalk* 14, 8 (2001): 9-11.

References

- Ferguson 96** Ferguson, J.; Cooper, J.; Falat, M.; Fisher, M. Guido, A.; Marciniak, J.; Matejcek, J.; & Webster, R. *Software Acquisition Capability Maturity Model, Version 1.02* (CMU/SEI-96-TR-020). Pittsburgh, PA: Software Engineering Institute, Carnegie Mellon University, 1996.
- Ferguson 99** Ferguson, P., Leman, G., Perini, P., Renner, S., & Seshagiri, G. *Software Process Improvement Works!* (Technical Report CMU/SEI-99-TR-027). Pittsburgh, PA: Software Engineering Institute, Carnegie Mellon University, 1999.
- Fitz-Eng 95** Fitz-Eng, J. *How to Measure Human Resources Management*. New York: McGraw-Hill, 1995.
- Flowe 94** Flowe, R. M. & Thordahl, J. B. *A Correlational Study of the SEI's Capability Maturity Model and Software Development Performance in DoD Contracts* (AFIT/GSS/LAR/94D-2). Dayton, OH: Air Force Institute of Technology, Wright Patterson Air Force Base, 1994.
- Gremba 97** Gremba, J. & Myers, C. "The IDEALSM Model: A Practical Guide for Improvement." *Bridge*, 3 (1997): 19-23. [online]. Available WWW <URL: <http://www.sei.cmu.edu/ideal/ideal.bridge.html>>
- Hannon 96** Hannon, J. M. & Milkovich, G. T. "The Effect of Human Resource Reputation Signals on Share Prices: An Event Study." *Human Resources Management* 35, 3, (1996): 405-424.
- Hansen 89** Hansen, G. S. & Wernerfelt, B. "Determinants of firm performance: relative importance of economic and organizational factors." *Strategic Journal of Management* 10 (1989): 399-411.
- Harry 00** Harry, M. and Schroeder, R.. *Six Sigma: The Breakthrough Management Strategy Revolutionizing the World's Top Corporations*. New York: Currency, 2000.
- Harter 00** Harter, D. E.; Mayuram, S. K.; & Slaughter, S. A. "Effects of Process Maturity on Quality, Cycle Time, and Effort in Software Product Development." *Management Science* 46, 4 (2000): 451-466.
- Hefley 98** Hefley, W. E. & Curtis, B. *People CMM[®]-Based Assessment Method Description* (Technical Report CMU/SEI-98-TR-012). Pittsburgh, PA: Software Engineering Institute, Carnegie Mellon University, 1998.

References

- Herbsleb 94** Herbsleb, J, Carleton, A., Rozum, J., Siegel, J., & Zubrow, D. *Benefits of CMM-Based Software Process Improvement: Initial Results (Tech. Rep. CMU/SEI-94-TR-13)*. Pittsburgh: Software Engineering Institute, Carnegie Mellon University, 1994.
- Humphrey 87** Humphrey, W. & Sweet, W. *A Method for Assessing the Software Engineering Capability of Contractors* (Technical Report CMU/SEI-87-TR-23, ADA187230). Pittsburgh, PA: Software Engineering Institute, Carnegie Mellon University, 1987.
- Humphrey 88** Humphrey, W. S. Characterizing the software process. *IEEE Software* 5, 2 (1988): 73-79.
- Humphrey 89** Humphrey, W. S. *Managing the Software Process*. Reading, MA: Addison-Wesley, 1989.
- Humphrey 95** Humphrey, W.S. *A Discipline for Software Engineering*. Reading, MA: Addison-Wesley Publishing Company, 1995.
- Humphrey 97a** Humphrey, W. S. *Managing Technical People*. Reading, MA: Addison-Wesley Publishing Company, 1997.
- Humphrey 97b** Humphrey, W.S. *Introduction to the Personal Software ProcessSM*. Reading, MA: Addison-Wesley Publishing Company, 1997.
- Humphrey 00** Humphrey, W. S. *Introduction to the Team Software ProcessSM*. Reading, MA: Addison-Wesley, 2000.
- Huselid 95** Huselid, M. A. “The Impact of Human Resource Management Practices on Turnover, Productivity, and Corporate Financial Performance.” *Academy of Management Journal* 38 (1995): 635-672.
- Kaplan 92** Kaplan, R. S. & Norton, D. P. “The Balanced Scorecard—Measures That Drive Performance.” *Harvard Business Review* 70, 1 (1992): 71-79.
- Katzenbach 93** Katzenbach, J.R. & Smith, D.K. *The Wisdom of Teams*. Boston: Harvard Business School Press, 1993.
- Keeni 00** Keeni, G. “The Evolution of Quality Processes at Tata Consultancy Services.” *IEEE Software* 17, 4 (2000): 79-88.

References

- Kirkpatrick 98** Kirkpatrick, D.L. *Evaluating Training Programs (2nd Ed)*. San Francisco: Berrett-Koehler, 1998.
- Kling 95** Kling, J. "High Performance Work Systems and Firm Performance." *Monthly Labor Review* 118, 5,(1995): 29-36.
- Kravetz 88** Kravetz, D. *The Human Resources Revolution*. San Francisco, CA: Jossey-Bass, 1988.
- Krishnan 00** Krishnan, M. S.; Kriebel, C. H.; Kekre, S.; & Mukhopadhyay, T. "An Empirical Analysis of Productivity and Quality in Software Products." *Management Science* 46, 6 (2000): 745–759.
- Labor 93** U.S. Dept. of Labor, Office of the American Workplace. *High Performance Work Practices and Firm Performance*. Washington, D. C.: U. S. Dept. of Labor, 1993.
- Major 98** Major, J.; Pellegrin, J. F.; & Pittler, A. W. "Meeting the software challenge: Strategy for competitive success." *Research-Technology Management* 41, 1 (1998): 48-56.
- Martín-Vivaldi 99** Martín-Vivaldi, M. & Berg, U. "Influencing the People Perspective at Ericsson using the People CMM." *Proceedings of the European SEPG 1999 Conference*. Milton Keynes, UK: ESPI Foundation, 1999.
- Masters 95** Masters, S. & Bothwell, C. *CMMSM Appraisal Framework, Version 1.0* (CMU/SEI-95-TR-001, ADA 293300). Pittsburgh, PA: Software Engineering Institute, Carnegie Mellon University, 1995.
- Mavrinac 95** Mavrinac, S. C.; Jones, N. R.; & Meyer, M. W. *Competitive Renewal Through Workplace Innovation: The Financial and Non-Financial Returns to Innovative Workplace Practices* (CBI working paper 15). Boston, MA: Ernst & Young Center for Business Innovation (CBI), 1995.
- McGarry 87** McGarry, F. *Proceedings of the Twelfth Annual Software Engineering Workshop*. Greenbelt, MD: NASA, 1987.
- Miller 00** Miller, C. & Miller, S. "Living at Level 3 of the People Capability Maturity Model[®]" *SEI Software Engineering Symposium*. Pittsburgh, PA: Software Engineering Institute, Carnegie Mellon University, 2000.

References

- Mirvis 97** Mirvis, P. H. "Human resource management: Leaders, laggards, and followers." *Academy of Management Executive* 11, 2(1997): 43-56.
- Mobrin 97** Mobrin, J. & Wästerlid, A. "The Improvement Engine of the Ericsson System Software Initiative." *Proceedings of the European SEPG 1997 Conference*. Milton Keynes, UK: ESPI Foundation, 1997.
- Mohrman 95** Mohrman, S. A.; Cohen, S. G.; & Mohrman, A. M., Jr. *Designing Team-Based Organizations*. San Francisco: Jossey-Bass, 1995.
- Newman 96** Newman, K. L. & Nollen, S. D. "Culture and Congruence: The Fit Between Management Practices and National Culture." *Journal of International Business Studies* 27, 4 (1996): 753-779.
- Pande 00** Pande, P. S., Neuman, R. P. & Cavanagh, R. R. *The Six Sigma Way: How GE, Motorola, and Other Top Companies Are Honing Their Performance*. New York: McGraw-Hill, 2000.
- Paulk 93a** Paulk, M.C., Curtis, B., Chrissis, M.B., & Weber, C.V. The Capability Maturity Model for Software, Version 1.1. *IEEE Software* 10, 4 (1993): 18-27.
- Paulk 93b** Paulk, M.C., Weber, C.V., Garcia, S.M., Chrissis, M.B., & Bush, M. *Key Practices of the Capability Maturity Model, Version 1.1 (Tech. Rep. CMU-SEI-93-TR-25)*. Pittsburgh: Carnegie Mellon University, Software Engineering Institute, 1993.
- Paulk 95** Paulk, M.C., Weber, C., Curtis, B., & Chrissis, M.B. *The Capability Maturity Model: Guidelines for Improving the Software Process*. Reading, MA: Addison-Wesley, 1995.
- Paulk 01a** Paulk, M., et al. *The 2001 High Maturity Workshop (Tech. Rep. CMU/SEI-2001-SR-014)*. Pittsburgh: Carnegie Mellon University, Software Engineering Institute, 2001.
- Paulk 01b** Paulk, M., Goldenson, D. & White, D. *The 2001 Survey of High Maturity Organizations (Tech. Rep. CMU/SEI-2001-SR-013)*. Pittsburgh: Carnegie Mellon University, Software Engineering Institute, 2001.
- Pfeffer 94** Pfeffer, J. *Competitive Advantage Through People*. Boston: Harvard Business School Press, 1994.

References

- Pfeffer 98** Pfeffer, J. *The Human Equation: Building Profits by Putting People First*. Boston: Harvard Business School Press, 1998.
- Pfeffer 01** Pfeffer, J. "Fighting the War for Talent is Hazardous to Your Organization's Health." *Organizational Dynamics* 29, 4 (2001): 248-259.
- Pitterman 00** Pitterman, B. "Telcordia Technologies: The Journey to High Maturity." *IEEE Software* 17, 4 (2000): 89-96.
- Porter 01** Porter, Bradford L. "Starting People CMM Without an Assessment, Lessons Learned." *Software Engineering Process Group Conference (SEPG 2001)* (March 12-15, 2001, New Orleans, LA). Pittsburgh, PA: Software Engineering Institute, Carnegie Mellon University, 2001.
- Prahalad 90** Prahalad, C. K. & Hamel, G. (1990). "The Core Competence of the Corporation." *Harvard Business Review* 68, 3 (1990): 79-91.
- Radice 85** Radice, R. A.; Harding, J. T.; Munnis, P. E.; & Phillips, R. W. "A programming process study." *IBM Systems Journal* 24, 2 (1985): 79-90.
- Rothman 01** Rothman, J. "Crisis? What Crisis? A Contrarian Perspective." *Cutter IT Journal: The Journal of Information Technology Management* 14, 6 (2001):19-25.
- Sackman 68** Sackman, H.; Ericsson, W. J.; & Grant, E. E. "Exploratory experimental studies comparing online and offline performance." *Communications of the ACM* 11, 1(1968): 3-11.
- Seshagiri 00** Seshagiri, G. (2000). "Aligning Measurements to Strategy in a Small/Medium Enterprise: the AIS (Advanced Information Services Inc.) Balanced Scorecard." *Proceedings of the European SEPG 2000 Conference*, Milton Keynes, UK: ESPI Foundation.
- Spencer 93** Spencer, L. M. & Spencer, S. M. *Competence at Work: Models for Superior Performance*. New York: John Wiley, 1993.
- Tondon 00** Tondon, A.; Narayan, S.; & Gulati, S. "P-CMM Impacts on SW-CMM Implementation." *SEPG India 2000*, Bangalore, India, February 22-26, 2000.
- Ulrich 97a** Ulrich, D. (1997). "A new mandate for human resources." *Harvard Business Review* 76, 1 (1998): 124-134.

References

- Ulrich 97b** Ulrich, D. "Measuring Human Resources: An Overview of Practice and a Prescription for Results." *Human Resource Management* 36, 4(1997): 303-320.
- Valett 89** Valett, J. D. & McGarry, F. E. "A summary of software measurement experiences in the software engineering laboratory." *Journal of Systems and Software* 9, 2 (1989): 137-148.
- Vu 01** Vu, J. D. "Process Improvement Journey (From Level 1 to Level 5)." *The Sixth Annual European Software Engineering Process Group Conference (SEPG 2001)* (11-14 June 2001, Amsterdam). Kilton-Keynes, UK: ESPI Foundation.
- Welbourne 96** Welbourne, T. M. & Andrews, A. O. "Predicting the Performance of Initial Public Offerings: Should Human Resource Management Be in the Equation?" *Academy of Management Journal* 39, 4 (1996): 891-919.
- Wellins 91** Wellins, R.S.; Byham, W.C.; & Wilson, J.M. *Empowered Teams: Creating Self-Directed Work Groups that Improve Quality, Productivity, and Participation*. San Francisco: Jossey-Bass, 1991.
- Wenger 98** Wenger, E. *Communities of Practice : Learning, Meaning, and Identity*. New York: Cambridge Univ Press, 1998.
- Wenger 00** Wenger, E. C. & Snyder, W. M. "Communities of Practice: The Organizational Frontier." *Harvard Business Review* (January-February 2000): 139-145
- Wigle 99** Wigle, G. B. & Yamamura, G. "SEI CMMSM Level 5: Boeing Space Transportation Systems Software." (Chapter 13) In Schulmeyer, G. G. & McManus, J. I. (eds.), *Handbook of Software Quality Assurance* (3rd ed.). Upper Saddle River, NJ: Prentice Hall PTR, 1999.
- Wilson 00** Wilson, D. D. & Collier, D. A. "An Empirical Investigation of the Malcolm Baldrige National Quality Award Causal Model." *Decision Sciences* 31, 2 (2000): 361-390.
- Yamamura 99** Yamamura, G. "Process Improvement Satisfies Employees." *IEEE Software* 16, 5 (1999): 83-85.

References

- Yeung 97** Yeung, A. K. & Berman, B. “Adding Value Through Human Resources: Reorienting Human Resource Measurement to Drive Business Performance.” *Human Resource Management* 36, 3 (Fall 1997): 321–335.
- Yochum 96** Yochum, D. S.; Laws, E. P.; & Barlow, G. K. “An Integrated Human Resources Approach to Moving Information Technology Professionals Toward Best in Class.” *AT&T Technical Journal* 75, 1(1996): 46-53.

Appendix B: Acronyms

Acronyms used in the People CMM

AB	Ability to Perform
ADA	Americans with Disabilities Act
CBA IPI	CMM-Based Appraisal for Internal Process Improvement
CFROI	cashflow return on investment
CMM	Capability Maturity Model
CMMI	Capability Maturity Model Integration
CMMI-SE/SW	Capability Maturity Model-Integrated for Software Engineering and Systems Engineering
CO	Commitment to Perform
COBRA	Consolidated Omnibus Budget Reconciliation Act
CMU	Carnegie Mellon University
DoD	Department of Defense
EEO	Equal Employment Opportunity
EFQM®	European Foundation for Quality Management
EVA®	Economic Value Added
EVC	Economic Value Creation
FFRDC	federally-funded research and development center
HIPAA	Health Insurance Portability and Accountability Act
IDEAL	Initiating, Diagnosing, Establishing, Acting, Learning
IPPD	Integrated Product and Process Development

Acronyms

MBNQA	Malcolm Baldrige National Quality Award
MBWA	management by walking around
ME	Measurement and Analysis
MTS	Member of the Technical Staff
OSHA	Occupational Safety and Health Administration
P	practice
P-CMM	People CMM®
PA	process area
PAIS	Process Appraisal Information System
PCAR	People CMM® Assessment Repository.
PSPSM	Personal Software Process SM
QWL	quality of work life
RI	Residual Income
ROCE	Return on Capital Employed
SA-CMM	Software Acquisition CMM®
SCAMPI	Standard CMMI Assessment Method for Process Improvement
SE-CMM	Systems Engineering Capability Maturity Model
SEI	Software Engineering Institute
SEIR	Software Engineering Information Repository (http://seir.sei.cmu.edu)
SEPG	software engineering process group
SEPM	Software Engineering Process Management
SVA	shareholder value analysis
SW-CMM	Capability Maturity Model® for Software
TQM	total quality management

TSP	Team Software Process
VE	Verifying Implementation

Acronyms used for the People CMM process areas

CA	Competency Analysis (process area)
CBA	Competency-Based Assets (process area)
CBP	Competency-Based Practices (process area)
CCI	Continuous Capability Improvement (process area)
CD	Competency Development (process area)
CI	Competency Integration (process area)
CMP	Compensation (process area)
COM	Communication and Coordination (process area)
CRD	Career Development (process area)
CWI	Continuous Workforce Innovation (process area)
EWG	Empowered Workgroups (process area)
MTR	Mentoring (process area)
OCM	Organizational Capability Management (process area)
OPA	Organizational Performance Alignment (process area)
PC	Participatory Culture (process area)
PM	Performance Management (process area)
QPM	Quantitative Performance Management (process area)
STF	Staffing (process area)
TD	Training and Development (process area)

Acronyms

WE	Work Environment (process area)
WFP	Workforce Planning (process area)
WGD	Workgroup Development (process area)

Appendix C: Glossary

Definitions

Ability to Perform	A category of institutionalization practices within a process area that describes the preconditions that must exist in the unit or organization to implement practices competently. Ability to Perform typically involves resources, organizational structures, and preparation to perform the practices of the process area.
activity	Actions taken by responsible individuals or workgroups to implement workforce practices. (See also <i>practices</i> .)
activities	See <i>workforce activities</i> .
affected individuals	Those affected by the performance of a workforce activity or by a decision. Also may imply that a workforce practice is conducted only with individuals in selected positions, job types, or units.
assignable cause of process variation	An extraordinary event outside the bounds of the normal execution of the process.
assignment	The tasks involved in one or more roles whose performance constitutes an individual's committed work.
capability baseline	A statistically-based description of the performance or results of a process that has been performed repeatedly. Capability baselines can quantify either attributes of the process (e.g., effort or duration) or of the product produced by the process (e.g., amount or quality). Control charts used in statistical process control are one form of capability baseline. However, other statistical representations may be more appropriate, depending on the nature of the data being characterized. The purpose of a capability baseline is for predicting future outcomes and for interpreting the results of process performance. See also <i>process performance baseline</i> .
capability maturity model	A capability maturity model (CMM) is an evolutionary roadmap for implementing the vital practices from one or more domains of organizational process. It contains the essential elements of effective processes for one or more disciplines. It describes an evolutionary improvement path from an ad hoc, immature process to a disciplined, mature process with

Glossary

	improved quality and effectiveness.
capability of the workforce	See <i>workforce capability</i> .
coaching	The use of an experienced and capable individual(s) to increase the knowledge, skills, and process abilities of individuals or workgroups. Coaching is a form of mentoring that involves expert knowledge and skill in the subject matter being coached.
commitment	A pact that is freely assumed, visible, and expected to be kept by all parties involved.
Commitment to Perform	A category of institutionalization practices within a process area that describes the actions an organization must take to ensure that the activities constituting a process area are established and will endure. Commitment to perform typically involves establishing organizational policies (to set expectations for performance), executive management sponsorship, and assigned responsibilities for advising on and coordinating the implementation of workforce practices.
committed work	An agreement concerning the scope of work to be performed and the work products or services to be produced.
common workgroup methods and procedures	Common methods and procedures for performing standard activities that occur in most workgroups, such as problem-solving or conducting meetings.
compensation	Compensation includes all forms of inducements or remuneration offered to employees for work performed, most commonly pay and guaranteed benefits. Pay includes any guaranteed fixed rate of salary or hourly wages provided to individuals, plus any variable amounts that are provided based on an existing agreement between the organization and the individual on how it is administered.
compensation strategy	An organization's philosophy and method for compensating its workforce.
competency	An underlying characteristic of an individual that is causally related to effective and/or superior performance, as determined by measurable, objective criteria, in a job or situation [adapted from Spencer 93, p. 9]. (See also <i>workforce competency</i> .)
competency-based asset	A bundle of information or an artifact that has been prepared in a standard format and made available for widespread use. It captures knowledge, experience, or artifacts developed in

performing competency-based processes within an organization. As an organizational asset, it becomes a component of one of more workforce competencies.

competency-based process

Defines how individuals within a specific workforce competency apply their knowledge, perform their skills, and apply their process abilities within the context of an organization's defined work processes. At Maturity Levels 4 and 5 of the People CMM, "competency-based processes" also may also include integrated competency-based processes (or multi-disciplinary processes). The organization's defined processes are often described in terms of the processes performed by different workforce competencies, such as the software development process, the sales process, or the customer training process. Competency-based processes are documented, trained, performed, enforced, measured, and improved over time. The competency-based processes associated with a single workforce competency may represent only part of a defined organizational process, since other elements of the defined process may be performed by individuals with different workforce competencies.

competency community

Members of a workforce who share and practice a workforce competency; those who share the common knowledge, skills, and process abilities of a particular workforce competency. They are also sometimes referred to as "communities of practice" [Brown 00, Wenger 98, Wenger 00].

competency development plan

Identifies the current and future needs of a workforce competency. These plans can either be produced as separately documented plans for each workforce competency, or they can be integrated together in the organization's strategic workforce plan.

competency information

Typically describes an individual's level of capability in relation to the list of knowledge, skills, and process abilities contained in relevant workforce competency descriptions.

competency management

A collection of workforce practices used to enhance the capability of the workforce to perform their assigned tasks and responsibilities, and to achieve specific competency growth objectives.

concern

An issue, state of affairs, condition, complaint or grievance that an individual or workgroup wants the organization to address and resolve.

core competency

The combination of technology and production skills that create

Glossary

an organization's products and services and provide its competitive advantage in the marketplace. A workforce competency is different from the concept of a core competency of the organization, as formulated by Prahalad and Hamel [Prahalad 90]. One or more workforce competencies have to be present in the workforce so that they can execute a core competency of the organization.

corrective action

Acts or deeds used to remedy a situation, remove an error, or adjust a condition.

critical competency-based processes

Those competency-based processes within each critical workforce competency that are most crucial to achieving defined performance objectives and business results. Consequently, critical competency-based processes are managed quantitatively at Maturity Level 4 to ensure that they can be performed with sufficient capability to achieve the organization's quantitative performance objectives and intended business results.

critical positions

Positions that are critical to the accomplishment of the organization's business objectives. Critical positions include more than just executive and other senior management positions. Certain technical, operational, or business positions may also be designated as critical positions because of the difficulty in finding or developing individuals with the knowledge, skills and process abilities to perform successfully in these positions. The organization organizes the development and career activities required to provide qualified candidates to fill critical positions.

critical skills

Skills that, if not performed effectively, could jeopardize the successful performance of assigned tasks.

critical task

A task that is important for accomplishing an individual's or unit's performance objectives. A task that could jeopardize the successful performance of an assignment, if it is not performed well according to task-related criteria.

critical workforce competency

Critical workforce competencies are those most crucial to sustaining an organization's capability in its core competence [Prahalad 90]. Their growth and development is critical to the viability of the organization's strategic business objectives and plans. Consequently, at Maturity Level 4, the organization's capability in these workforce competencies is managed quantitatively to ensure their competency-based processes can be performed with sufficient capability to achieve the

	organization's quantitative performance objectives.
defined process	A managed process that documents a set of tasks, contributes to the production of a work product or the delivery of a service, and provides appropriate measures of performance.
development objectives	An individual's intentions to satisfy needs for critical skills required to perform assigned work and for development to prepare for future assignments and career options.
empowered workgroup	A workgroup that is granted considerable autonomy in managing and performing its work and may perform selected workforce practices within the workgroup.
establish and maintain	In goal and practice statements in a CMM, this phrase means to define, document, make available for use, and periodically update.
equity	A state wherein a market-adjusted balance exists between an individual's remuneration and their value to the organization as measured by capability and performance.
executive management	<p>Management roles whose primary focus is the long-term vitality of the organization, rather than short-term production or service concerns. Executive management provides and protects resources for long-term improvement of workforce practices.</p> <p>As used in the People CMM practices, the term "executive management" should be interpreted in the context of the process area and the projects and organization under consideration. The intent is to include specifically those executive managers who are needed to fulfill the leadership and oversight roles essential to achieving the goals of the process area.</p>
expected model component	A model component which is meant to guide in implementing improvements or performing assessments. Either the practices, as described, or acceptable alternatives to them must be present with a frequency appropriate to a reasonable implementation of the practice before goals can be considered achieved.
goal	<p>An organizational state to be achieved by implementing the practices of a process area. Goals are requirements for implementing CMM-based improvements. The organizational state described by each goal within a process area must be achieved to consider the process area to be achieved.</p> <p>In CMMs, the word "goal" is only used when referring to the</p>

Glossary

	model component. Each process area contains one or more implementation goals and one institutionalization goal.
graduated career opportunities	An arrangement of positions or work responsibilities that require increasing levels of capability in one or more workforce competencies. Graduated career opportunities include not only promotion opportunities upwards within the organization such as career ladders or paths, but also career lattices that provide broadening or lateral assignments to gain experience or increase the individual's capabilities in additional workforce competencies.
group	A cluster of individuals organized into a structure that is convenient for managing. This term is used only at Maturity Level 2, and makes no assumption about the level of dependency among their work activities. A high level of interdependency among people in a group might justify their being developed into a workgroup at Maturity Level 3.
human resources	The collection of individuals (both managers and staff) comprising the unit(s) within an organization that focuses on devising practical, effective ways to manage employer-employee relations. Their responsibility is directed toward, but not limited to, the recruiting, selection, hiring, training, compensating, and well-being of employees and the formulation of policies, practices, and procedures that affect employees.
IDEAL	The IDEAL SM model is an organizational improvement model that serves as a roadmap for initiating, planning, and guiding improvement actions. It is called the IDEAL model after the first letters in each of its five phases: Initiating, Diagnosing, Establishing, Acting, and Learning.
implementation practices	The practices and procedures implemented by the organization to satisfy the implementation goals of a process area. These are the practices that collectively constitute the area of practice denoted by the title of the process area. (See <i>institutionalization practices</i> for contrast.)
individual development objectives	An individual's intentions for meeting their training and development needs to develop critical skills required by their current assignment or to prepare for future assignments and career opportunities.
individuals	A person who performs an assignment required to execute the business activities of the organization. The term "individuals" is normally used in reference to those affected by the

	performance of a workforce practice or activity.
informative model component	A model component that provides details that help explain or elaborate approaches to implementing and institutionalizing a practices or goals.
institutionalization	The building and reinforcement of an organizational culture that sustains the performance of workforce practices as standard, ongoing business activities, even after those who originally defined them are gone.
institutionalization practices	<p>The practices and procedures implemented to ensure that the organization has a continuing commitment to and capability for performing the organization’s workforce practices and activities. Institutionalization practices support accomplishment of an institutionalization goal in each process area. Institutionalization practices can be categorized as:</p> <ul style="list-style-type: none">• Commitment to Perform• Ability to Perform• Measurement and Analysis• Verifying Implementation <p>(See <i>implementation practices</i> for contrast.)</p>
integrated competency-based processes	Processes that have been interwoven from separate competency-based processes to achieve a more seamless, process-based interaction among people possessing different workforce competencies. For instance the interweaving of a mechanical design process and a manufacturing design process into a single product design process. Also called a multidisciplinary process. Throughout Maturity Levels 4 and 5, the use of the term “competency-based processes” implies the inclusion of integrated competency-based processes.
integrated product and process development	Integrated Product and Process Development provides a systematic approach to product development that achieves a timely collaboration of relevant stakeholders throughout the product life cycle to better satisfy customer needs.
knowledge	The information and understanding that someone must have to perform a task successfully. Knowledge provides the basis for performing a skill.
managed process	A performed process that is planned and executed in accordance with policy, employs skilled people having adequate resources to produce controlled outputs, involves stakeholders, and is reviewed and evaluated for adherence to

Glossary

requirements.

maturity level

A maturity level represents a new level of organizational capability created by the transformation of one or more domains of an organization's processes. It is an evolutionary plateau on an organization's improvement path from ad hoc practices to a state of continuous improvement. All CMMs contain 5 levels of maturity. (See also *process area*.)

Measurement and Analysis

A category of institutionalization practices within a process area that describes the actions the organization must take to ensure that workforce practices are evaluated for performance and effectiveness. Measurement and Analysis typically involves measuring the status of the practices performed, aggregating some measures from the unit to the organizational level, and evaluating the effectiveness of the practices performed.

mentoring

The process of transferring the lessons of greater experience in a workforce competency to improve the capability of other individuals or workgroups.

method

A reasonably complete set of rules and criteria that establish a precise and repeatable way of performing a task or practice and arriving at a desired result.

multi-disciplinary processes

A process that has been interwoven from separate competency-based processes to achieve a more seamless, process-based interaction among people possessing different workforce competencies. One example of a multi-disciplinary process is the the interweaving of a mechanical design process and a manufacturing design process into a single product design process. Also called an integrated competency-based process. Throughout Maturity Levels 4 and 5, the use of the term "competency-based processes" implies the inclusion of multi-disciplinary processes.

optimizing process

A quantitatively managed process that is continually improved to increase its capability. These continuous improvements can be made through both incremental and innovative improvements. (See *quantitatively managed process* and *defined process* for contrast.)

organization

A collection of units for which an executive management is responsible. An organization could constitute an entire company or agency, or it could constitute only a component of a larger organizational entity, such as a division or branch.

organization's business objectives	Strategies devised by executive management to ensure an organization's continued existence, and to enhance its profitability, market share, and other factors influencing the organization's success.
organization's set of standard processes	The definition of the basic processes that are used as the basis for establishing common processes across the organization. It describes the fundamental process elements that are expected to be incorporated into the defined processes. It also describes the relationships (e.g., ordering and interfaces) between these process elements. (See also <i>defined process</i> and <i>process elements</i> .)
organizational maturity	The extent to which an organization has explicitly and consistently deployed workforce practices or processes that are documented, managed, measured, controlled, and continually improved. Organizational process maturity may be measured via a process appraisal.
organizational policy	A guiding principle typically established by executive management that is adopted by an organization to guide behavior and influence decisions.
organizational role	One or more individuals who coordinate and advise people throughout the organization on the implementation of practices within a process area. Those who might fill "organizational roles" are usually found in staff positions such as human resources, training, process engineering, etc.
participatory culture	An environment in which information is made available to support individuals in making appropriate decisions, and where decisions are shifted to the most appropriate location within the organization so that those affected by a decision participate in, or are represented in, the process of making it.
performance alignment	The congruence of performance objectives and the consistency of performance results across the individuals, workgroups, units, and organization. Therefore, the process of aligning performance results across individuals, teams, and units with the organization's performance objectives, and quantitatively assessing the effectiveness of workforce practices on achieving alignment
performance improvement plan	A document describing the detailed actions and expected results for correcting identified performance problem(s).
performance	The process of establishing objective criteria against which unit

Glossary

management	and individual performance can be measured, providing performance feedback, managing performance problems, rewarding and recognizing outstanding performance, and enhancing performance continuously.
performance objective	A measurable attribute or result of work behavior that can be used to evaluate the performance of a unit, workgroup, or individual.
perquisites	A privilege or profit beyond regular pay that is provided as a component of overall compensation. A benefit that is provided only to specified individuals or positions within the organization.
personal development plan	Specifies the actions to be taken by an individual for developing additional capability in their workforce competency, and for applying this capability to their work. The plan usually contains objectives for completing development activities, and may contain objectives for capability or performance improvement.
personal work processes	The work processes used by an individual to perform his or her portion of a business process; they are how single individuals perform the elementary tasks constituting the competency-based processes involved in their work. Thus, personal work processes reflect unique, individual characteristics that differ among people performing the same competency-based process. Through Continuous Capability Improvement, these personal work processes mature to become a “customized set of orderly, consistently practiced, and high-quality personal practices” [Humphrey 95].
policy	A guiding principle typically established by executive management, which is adopted by an organization or project to influence and determine decisions.
position	A post of employment, an assignment of duty, a job.
practice	A practice contained in a process area that describes an essential activity to, in part or in whole, accomplish a goal of the process area. A practice is a subprocess within a process area that contributes to achieving a process area goal. (See also <i>process area</i> and <i>goal</i> .)
practices	“Practices” is used throughout the People CMM to refer to standard workforce processes. (See <i>workforce practices</i> . See also <i>activities</i> , which refers to actions taken to implement these

practices.)

Practices Performed The implementation practices within a process area that describes the practices and procedures that an organization would ordinarily be expected to perform in order to achieve the implementation goals of a process area.. These practices constitute the area of concern represented in the title of the process area. (See *implementation practices*. See also *process area*.)

preparation Activities undertaken to ensure that responsible individuals have the skills required to perform their responsibilities. Preparation could involve mentoring, classroom training, self-study, or any other activity that ensures the affected individual has the required level of knowledge and skill to perform the practices and activities allocated to them.

procedure A written description of a course of action to be taken in performing a task or workforce practice.

process A set of tasks or activities performed to achieve a given purpose or a specified result.

process ability The capacity to perform individual skills in the specific sequencing or method used in the organization to coordinate activities among individuals or groups, and to adjust the performance of skills, as necessary, to maintain an orderly flow of work.

Process abilities represent an individual's capacity to apply their knowledge and perform their skills within the context of the organization's defined, competency-based processes. It includes the ability to adjust the performance of skills in ways that maintain an orderly flow of work. Possessing a process ability indicates that an individual is able to perform the competency-based processes appropriate for someone at their level of development in the workforce competency.

process area A cluster of related practices that, when performed collectively, satisfy a set of goals that contribute to the capability gained by achieving a maturity level.

process area goal See *goal*.

process asset Anything that the organization considers useful in attaining the goals of a process area.

process capability The range of expected results that can be achieved by following

Glossary

	a process. The ability of a process to meet its objectives or requirements or to perform within specified limits.
process capability baseline	A documented characterization of the range of expected results that would normally be achieved by following a specific process under typical circumstances.
process description	A documented expression of a set of activities performed to achieve a given purpose that provides an operational definition of the major components of a process. The documentation specifies, in a complete, precise, and verifiable manner, the requirements, design, behavior, or other characteristics of a process. It also may include procedures for determining whether these provisions have been satisfied. Process descriptions may be found at the activity, personal, workgroup, unit, or organizational levels.
process element	A unitary component of a process description, usually at task or activity level which would not be defined into more elementary components. A process may be defined in terms of subprocesses or process elements. A subprocess can be further decomposed; a process element is not decomposed into finer-grained descriptions.
process group	A collection of specialists that facilitate the definition, maintenance, and improvement of the process(es) used by the organization.
process improvement	A program of activities designed to improve the performance and maturity of the organization's processes, and the results of such a program.
process maturity	The extent to which an organization's processes are defined, managed, measured, controlled, and continually improved. Process maturity implies continued improvement in the organization's capability for performing its business activities, and indicates consistency in performing its processes throughout the organization.
process owner	Those responsible for defining and maintaining a process. At the organizational level, the process owner is the individual(s) responsible for the description of a standard process or set of related practices. Within a workforce competency, the process owner is the individual(s) responsible for defining and maintaining the competency-based processes associated with that workforce competency. A process may have multiple owners at different levels of responsibility. (See also <i>defined</i>)

process.)

**process
performance**

A measure of the actual results achieved by performing or following a process.

**process
performance
baseline**

A documented characterization of the actual results achieved by following a process, which is used as a benchmark for comparing actual process performance against expected process performance. (See also *process performance*.)

process tailoring

To make, alter, or adapt a process description to make it fit for use in a particular situation. For example, the organization tailors its defined processes to adapt them for use with different competencies at Maturity Level 3. Similarly, competency-based processes may be tailored for use within a specific workgroup (See also *process description*, *competency-based process*, and *defined process*.)

**quantitatively
managed process**

A defined process that is evaluated and controlled using statistical and other quantitative techniques. The product quality, service quality, or process performance are measured to determine if results are within expected or predicted bounds, and needs for corrective action are assessed. (See *optimizing process* and *defined process* for contrast.)

recognition

Special acknowledgments made to an individual or group for accomplishments of value to the organization.

**required model
component**

A model component of a process area that is considered an essential contributor to the organizational capability achieved at the maturity level where the process area is located.

resource profile

A quantitative representation of the capability of the workforce within a selected workforce competency. At a minimum, a resource profile presents the number of individuals available to the organization at each level of capability within the workforce competency.

reward

Special recognition outside of the compensation system for accomplishments of significant value to the organization. Usually consists of variable amounts of money, stock, or other considerations provided to individuals or groups at appropriate times without any prior agreement as to conditions of receipt. Rewards are distinguished from recognition in that rewards typically involve financial considerations.

role

A defined set of work tasks, dependencies, and responsibilities that can be assigned to an individual as a work package. A role

Glossary

	describes a collection of tasks that constitute one component of a process, and would normally be performed by an individual.
skills	The behaviors that an individual must be able to perform in order to accomplish committed work. Skills may involve behaviors that directly accomplish the task or that provide the support of, or coordination with, others involved in accomplishing tasks.
staffing	The process by which talent is recruited, selected, and transitioned into assignments in the organization.
staged representation	A capability maturity model structure wherein attaining the goals of a set of process areas establishes a maturity level; each level builds a foundation for subsequent levels. (See also <i>process area</i> and <i>maturity level</i> .)
stakeholder	A group or individual that is affected by or is in some way accountable for the outcome of an undertaking.
stated values	A set of documented principles intended to guide behaviors or decisions about how the organization conducts its business, how it treats its workforce, how it interacts with its environment, and other important issues.
strategic workforce plan	Identifies the current and future workforce competency needs of the organization, based on anticipated current and future developments in the business and its products, services, markets, technologies, and business processes. This plan integrates the planned development activities for the organization's workforce competencies, which are necessary to provide the needed competencies over time. The strategic workforce plan sets long-term objectives for workforce activities at the organizational and unit levels.
subpractice	The component elements of a numbered practice in a process area that are elaborated to guide its effective implementation. Subpractices describe tasks or activities that may be implemented in implementing the practice. Subpractices are provided for informational purposes only (i.e., are informative model components), and are intended to provide clarification of the practice or ideas for guiding implementation.
subprocess	A process that is part of a larger process. (See <i>process description</i> .)
succession plans	Plans produced for critical positions within the organization to ensure that qualified individuals with the required knowledge,

skills, and process abilities are always available to perform a position's responsibilities. (See also *critical positions*.)

tailoring

The activity of elaborating, adapting, or completing the details of a practice, process, or role for use in a particular situation or set of circumstances.

team

The People CMM does not use the term "team" in order not to confuse the reader with the many meanings that have been attached to this word in the literature on team building. The People CMM uses the term "workgroup" and describes some workgroups as "empowered".

training

Activities undertaken to ensure that all individuals have the skills required to perform their assignments.

unit

A single, well-defined organizational component (e.g., a department, section, or project) within an organization. The term "unit" is used to refer to any organizational entity that is accountable to a specified individual(s) (usually a manager) responsible for accomplishing a set of performance objectives that can only be met through collective action. A workgroup may constitute the lowest level unit, but the lowest level units often consist of several workgroups. "Unit" is a recursive concept, since units may be composed from other units cascading down the organization. For instance, a division is a unit consisting of departments, each of which may be a unit consisting of programs, each of which may be a unit consisting of projects, and so on.

unit training needs

The aggregated requirements for development of knowledge, skills, and process abilities among the individuals within a unit.

values

Ideas held by individuals about ethical behavior or appropriate behavior, what is right or wrong, desirable or undesirable.

**Verifying
Implementation**

A category of institutionalization practices within a process area that describes the actions the organization must take to ensure that it is complying with its policies regarding workforce practices. Verifying Implementation typically involves assuring that practices are being performed in compliance with policies, stated values, plans, laws, and regulations; and that executive management maintains awareness of the level of compliance.

work commitment

An agreement concerning work to be accomplished. The commitment is made to the responsible individual for whom the work is being performed or to whom the result is being

Glossary

delivered.

workforce

The people an organization needs to perform its business activities. Used especially when workforce practices and activities are to be applied to the people in the organization collectively rather than as single individuals.

workforce activities

Actions taken to implement a workforce practice. Therefore, workforce activities are what responsible individuals actually do when performing a workforce practice. These actions are taken by individuals, in workgroups or units, or by the organization to implement workforce practices.

workforce capability

The readiness or preparedness of an organization's workforce to perform its business activities. Specifically, the level of knowledge, skills, and process abilities available to the organization in each critical workforce competency for performing committed work. The capacity of the workforce for performing work or for achieving specified levels of performance. Workforce capability is often measured for each workforce competency.

workforce competency

The People CMM refers to workforce competencies as a cluster of knowledge, skills, and process abilities that an individual should develop to perform a particular type of work in the organization. A workforce competency can be stated at a very abstract level, such as a need for a workforce competency in software engineering, financial accounting, or technical writing. Workforce competencies can also be decomposed to more granular abilities, such as competencies in designing avionics software, testing switching system software, managing accounts receivable, preparing consolidated corporate financial statements, or writing user manuals and training materials for reservation systems.

workforce improvement activities

Activities that improve the level of knowledge, skills, process abilities, motivation, and coordination of an organization's workforce.

workforce improvement proposal

A documented suggestion for change to a workforce process or practice that will improve workforce capability and performance.

workforce planning

The process of matching workforce capability with business needs by planning the workforce activities required to meet current and future business needs at both the organizational and unit levels.

workforce practices	Processes, procedures, or guidelines for implementing the organization's workforce policies. Practices provide guidance for complying with the organization's workforce policies. A workforce practice specifies documented procedures, guidelines, and content for performing workforce activities in any people-related area (e.g., compensation, performance management, workgroup development, coaching). Workforce practices are typically documented and maintained by the human resources function or another appropriate group.
workgroup	A collection of people who work closely together on tasks that are highly interdependent to achieve shared objectives.
workgroup's operating process	<p>All the tailored versions of competency-based processes, integrated competency-based processes, and common workgroup processes used by a workgroup.</p> <p>A workgroup's operating processes at the Defined Level are composed from the collection of tailored competency-based processes and common workgroup methods and procedures selected for use within the workgroup. A workgroup's operating processes at the Predictable Level are composed from the collection of tailored competency-based processes, integrated competency-based processes, and common workgroup methods and procedures selected for use within the workgroup. A workgroup's operating processes at the Optimizing Level refer to all the tailored versions of competency-based processes, integrated competency-based processes, and common workgroup methods and procedures.</p> <p>Each workgroup's operating process may be slightly different based on their tailoring of competency-based processes, and their unique integration of the personal work processes of its members.</p>

Glossary

Appendix D: Practice-to-Goal Mappings for People CMM Process Areas

Purpose

This appendix describes the People CMM, the maturity levels and the process areas that correspond to each maturity level of the P-CMM, and the goals and practices in each process area.

Structure of the People CMM

The People CMM consists of five maturity levels that lay successive foundations for continuously improving talent, developing an effective workforce, and successfully managing the people assets of the organization. Each *maturity level* is a well-defined evolutionary plateau that institutionalizes a level of capability for developing the workforce within the organization.

Each maturity level provides a layer in the foundation for continuous improvement of an organization's workforce practices. In maturing from the Initial to the Managed Level, the organization installs the discipline of performing basic workforce practices. In maturing to the Defined Level, these practices are tailored to enhance the particular knowledge, skills, and work methods that best support the organization's business. In maturing to the Predictable Level, the organization develops competency-based, high-performance workgroups, and empirically evaluates how effectively its workforce practices are meeting objectives. In maturing to the Optimizing Level, the organization looks continually for innovative ways to improve its workforce capability and to support the workforce in their pursuit of professional excellence.

Process Areas

The following figure displays the twenty-two process areas in the five maturity levels in the People CMM. Each *process area* (PA) identifies a cluster of related activities that, when performed collectively, achieve a set of goals considered important for enhancing workforce capability. Process areas have been defined to reside at a single maturity level.

Practice-to-Goal Mappings

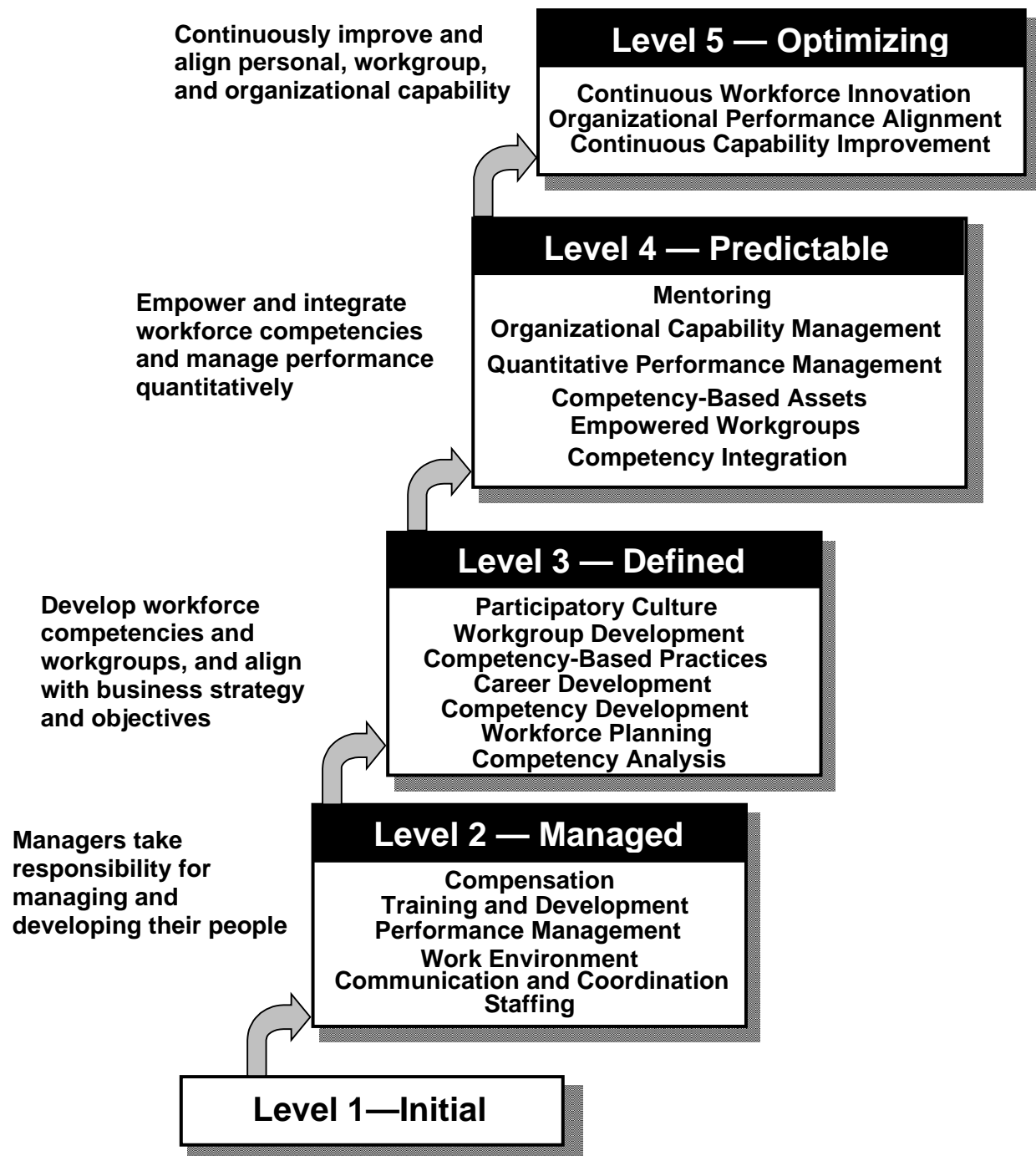


Figure A.1 — People CMM Process Areas

Process areas identify both:

- ❑ the capabilities that must be institutionalized to achieve a maturity level, and
- ❑ the practices that an organization should implement to improve its workforce capability.

The process areas at the Managed Level (Maturity Level 2) focus on instilling basic discipline into workforce activities. At Maturity Level 2, managers take responsibility for managing and developing their people. The process areas at Maturity Level 2 are Staffing, Communication and Coordination, Work Environment, Performance Management, Training and Development, and Compensation.

The process areas at the Defined Level (Maturity Level 3) address issues surrounding the identification of the organization's primary competencies and aligning its people management activities with them. At Maturity Level 3, the organization identifies and develops the workforce competencies required to accomplish its business strategy and objectives. The process areas at Maturity Level 3 are Competency Analysis, Workforce Planning, Competency Development, Career Development, Competency-Based Practices, Workgroup Development, and Participatory Culture.

The process areas at the Predictable Level (Maturity Level 4) focus on stabilizing predictable workforce capability. Opportunities enabled by developing workforce competencies are exploited. Workforce capability and performance become predictable through quantitative management. The process areas at Maturity Level 4 are Competency Integration, Empowered Workgroups, Competency-Based Assets, Quantitative Performance Management, Organizational Capability Management, and Mentoring.

The process areas at the Optimizing Level (Maturity Level 5) focus on continuous improvement of workforce capability and practices. These practices cover issues that address continuous improvement of methods for developing competency, at both the organizational and the individual level. The process areas at Maturity Level 5 are Continuous Capability Improvement, Organizational Performance Alignment, and Continuous Workforce Innovation.

Practices

This appendix contains an abridged version of the P-CMM practices, which provides a high-level overview of the practices within each process area. This appendix contains the purpose of each process area, its goals, and the practice statements from the process area. These items are extracted verbatim from the detailed descriptions of each process area.

Each process area lists the implementation practices mapped to their respective goals. Institutionalization practices (i.e., Commitment to Perform, Ability to Perform, Measurement

Practice-to-Goal Mappings

and Analysis, and Verifying Implementation) are mapped to an institutionalization goal in each process area. These practices must be in place to ensure that the process area is implemented appropriately and effectively, is solidly established, will be maintained and not erode over time, and can be effectively applied in future situations. To appropriately establish a process area, the full set of practices should be used.

Commitment to Perform typically involves establishing organizational policies, executive management sponsorship, and assigned responsibilities for advising on and coordinating the implementation of workforce practices. Ability to Perform typically involves typically involves resources, organizational structures, and preparation to perform the practices of the process area. Measurement and Analysis typically involves measuring the status of the workforce practices performed, aggregating some measures from the unit to the organizational level, and evaluating the effectiveness of the workforce practices performed. Verifying Implementation typically involves assuring that practices are being performed in compliance with policies, stated values, plans, laws, and regulations; and that executive management maintains awareness of the level of compliance.

Goal Mappings

The following process area tables map the practices to the relevant process area goals in each of the twenty-two process areas in the People CMM. The *goals* of a process area summarize the states that must exist for that process area to have been implemented in an effective and lasting way. The extent to which the goals have been accomplished is an indicator of how much capability the organization has established at that maturity level. The goals signify the scope, boundaries, and intent of each process area.

These practice-to-goal mappings can be used for comprehending the structure of the model, for guiding the implementation of improvement activities, and for evaluating the satisfaction of goals during an assessment. These mappings are suggestive of the strongest relationships between practices and goals. However, relationships may exist between practices and goals to which they are not mapped in these tables. SEI-authorized People CMM Lead Assessors must use their professional judgement in guiding assessment team members to make appropriate mappings of practices to goals under the organizational circumstances being assessed.

Practice-to-Goal Mappings

Staffing

The purpose of Staffing is to establish a formal process by which committed work is matched to unit resources and qualified individuals are recruited, selected, and transitioned into assignments.

STAFFING	
Goal 1 Individuals or workgroups in each unit are involved in making commitments that balance the unit's workload with approved staffing.	P1 Responsible individuals plan and coordinate the staffing activities of their units in accordance with documented policies and procedures.
	P2 Each unit analyzes its proposed work to determine the effort and skills required.
	P3 Individuals and workgroups participate in making commitments for work they will be accountable for performing.
	P4 Each unit documents work commitments that balance its workload with available staff and other required resources.
Goal 2 Candidates are recruited for open positions.	P6 Position openings within a unit are analyzed, documented, and approved.
	P7 Position openings within the organization are widely communicated.
	P8 Units with open positions recruit for qualified individuals.
	P9 External recruiting activities by the organization are planned and coordinated with unit requirements.
Goal 3 Staffing decisions and work assignments are based on an assessment of work qualifications and other valid criteria.	P10 A selection process and appropriate selection criteria are defined for each open position.
	P11 Each unit, in conjunction with its human resources function, conducts a selection process for each position it intends to fill.
	P12 Positions are offered to the candidate whose skills and other qualifications best fit the open position.
	P15 Representative members of a unit participate in its staffing activities.
Goal 4 Individuals are transitioned into and out of positions in an orderly way.	P5 Individual work assignments are managed to balance committed work among individuals and units.
	P13 The organization acts in a timely manner to attract the selected candidate.
	P14 The selected candidate is transitioned into the new position.
	P16 Workforce reduction and other outplacement activities, when required, are conducted according to the organization's policies and procedures.
	P17 Discharges for unsatisfactory performance or other valid reasons are conducted according to the organization's policies and procedures.
	P18 Causes of voluntary resignation from the organization are identified and addressed.

STAFFING	
Goal 5 Staffing practices are institutionalized to ensure they are performed as managed processes.	CO1 The organization establishes and maintains a documented policy for conducting its Staffing activities.
	CO2 An organizational role(s) is assigned responsibility for assisting and advising units on Staffing activities and procedures.
	AB1 Within each unit, an individual(s) is assigned responsibility and authority for ensuring that Staffing activities are performed.
	AB2 Adequate resources are provided for performing Staffing activities.
	AB3 Individuals performing Staffing activities receive the preparation in methods and procedures needed to perform their responsibilities.
	AB4 Individuals participating in Staffing activities receive appropriate orientation in Staffing practices.
	ME1 Measurements are made and used to determine the status and performance of Staffing activities.
	ME2 Unit measures of Staffing activities are collected and maintained.
	VE1 A responsible individual(s) verifies that Staffing activities are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews the Staffing activities, status, and results; and resolves issues.

Practice-to-Goal Mappings

Communication and Coordination

The purpose of Communication and Coordination is to ensure timely communication across the organization and that the workforce has the skills to share information and coordinate their activities efficiently.

COMMUNICATION AND COORDINATION	
Goal 1 Information is shared across the organization.	P1 The workforce-related policies and practices of the organization are communicated to the workforce.
	P2 Information about organizational values, events, and conditions is communicated to the workforce on a periodic and event-driven basis.
	P3 Information required for performing committed work is shared across affected units in a timely manner.
Goal 2 Individuals or groups are able to raise concerns and have them addressed by management.	P4 Individuals' opinions on their working conditions are sought on a periodic and event-driven basis.
	P5 Individuals or groups can raise concerns according to a documented procedure.
	P6 Activities related to the resolution of a concern are tracked to closure.
Goal 3 Individuals and workgroups coordinate their activities to accomplish committed work.	P7 The interpersonal communication skills necessary to establish and maintain effective working relationships within and across workgroups are developed.
	P8 Interpersonal problems or conflicts that degrade the quality or effectiveness of working relationships are handled appropriately.
	P9 Individuals and workgroups coordinate their activities to accomplish committed work.
	P10 Individuals and workgroups monitor and coordinate the dependencies involved in their committed work.
	P11 Meetings are conducted to make the most effective use of participants' time.

COMMUNICATION AND COORDINATION

Goal 4 Communication and Coordination practices are institutionalized to ensure they are performed as managed processes.	CO1 Executive management establishes and communicates a set of values for the organization regarding the development and management of its workforce.
	CO2 The organization establishes and maintains a documented policy for conducting its Communication and Coordination activities.
	CO3 An organizational role(s) is assigned responsibility for assisting and advising units on Communication and Coordination activities and procedures.
	AB1 Within each unit, an individual(s) is assigned responsibility and authority for ensuring that Communication and Coordination activities are performed.
	AB2 Adequate resources are provided for performing Communication and Coordination activities.
	AB3 Individuals responsible for facilitating or improving Communication and Coordination activities receive the preparation needed to perform their responsibilities.
	ME1 Measurements are made and used to determine the status and performance of Communication and Coordination activities.
	ME2 Unit measures of Communication and Coordination activities are collected and maintained.
	VE1 A responsible individual(s) verifies that the Communication and Coordination activities are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews the Communication and Coordination activities, status, and results; and resolves issues.

Practice-to-Goal Mappings

Work Environment

The purpose of Work Environment is to establish and maintain physical working conditions and to provide resources that allow individuals and workgroups to perform their tasks efficiently and without unnecessary distractions.

WORK ENVIRONMENT			
Goal 1	The physical environment and resources needed by the workforce to perform their assignments are made available.	P1	The physical environment and resources required to perform committed work are identified in each unit.
		P2	The physical environment required to perform assigned work is provided.
		P3	Individual workspaces provide an adequate personal environment for performing assigned work responsibilities.
		P4	The resources needed to accomplish committed work are made available in a timely manner.
		P5	Improvements are made to the work environment that improve work performance.
Goal 2	Distractions in the work environment are minimized.	P6	Environmental factors that degrade or endanger the health or safety of the workforce are identified and corrected.
		P7	Physical factors that degrade the effectiveness of the work environment are identified and addressed.
		P8	Sources of frequent interruption or distraction that degrade the effectiveness of the work environment are identified and minimized.

WORK ENVIRONMENT	
Goal 3 Work Environment practices are institutionalized to ensure they are performed as managed processes.	CO1 The organization establishes and maintains a documented policy for conducting its Work Environment activities.
	CO2 An organizational role(s) is assigned responsibility for assisting and advising units on work environment-related activities, and for assuming appropriate organizational responsibilities for the physical work environment and work resources.
	AB1 Within each unit, an individual (s) is assigned responsibility and authority for ensuring that Work Environment activities are performed.
	AB2 Within prudent limits, adequate resources are provided for performing Work Environment activities, implementing the physical environment and resources necessary to perform assigned work, and making improvements to the work environment.
	AB3 The workforce receives the preparation needed to maintain an effective work environment.
	AB4 Those responsible for improving the work environment receive the preparation in relevant methods and procedures needed to perform their responsibilities.
	ME1 Measurements are made and used to determine the status and performance of Work Environment activities.
	ME2 Unit measures of Work Environment activities are collected and maintained.
	VE1 A responsible individual(s) verifies that Work Environment activities are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews the Work Environment activities, status, and results, including improvements to the work environment; and resolves issues.

Practice-to-Goal Mappings

Performance Management

The purpose of Performance Management is to establish objectives related to committed work against which unit and individual performance can be measured, to discuss performance against these objectives, and to continuously enhance performance.

PERFORMANCE MANAGEMENT	
Goal 1 Unit and individual performance objectives related to committed work are documented.	P1 Measurable performance objectives based on committed work are established for each unit.
	P2 The unit's performance objectives are periodically reviewed as business conditions or work commitments change, and, if necessary, they are revised.
	P4 Performance objectives based on committed work are documented for each individual on a periodic or event-driven basis.
	P5 Performance objectives for each individual are reviewed on a periodic or event-driven basis, and, if necessary, they are revised.
Goal 2 The performance of committed work is regularly discussed to identify actions that can improve it.	P3 Those accountable for the accomplishment of unit performance objectives track and manage unit performance.
	P6 Those responsible for performance management activities maintain ongoing communication about the performance of committed work with those whose performance they manage.
	P7 Those responsible for managing the performance of others maintain an awareness of accomplishments against performance objectives for each of the individuals whose performance they manage.
	P8 Potential improvements in process, tools, or resources, which could enhance an individual's performance of committed work, are identified, and actions are taken to provide them.
	P9 The accomplishments of individuals against their performance objectives are documented and discussed on a periodic or event-driven basis according to a documented procedure.
Goal 3 Performance problems are managed.	P10 If performance problems occur, they are discussed with the appropriate individual(s).
	P11 Performance improvement plans are developed for resolving persistent performance problems according to a documented procedure.
	P12 Progress against a documented performance improvement plan is periodically evaluated, discussed, and documented.
Goal 4 Outstanding performance is recognized or rewarded.	P13 Guidelines for recognizing or rewarding outstanding performance are developed and communicated.
	P14 Recognition or rewards are made on an appropriate basis as events occur that justify special attention.

PERFORMANCE MANAGEMENT		
Goal 5 Performance Management practices are institutionalized to ensure they are performed as managed processes.	CO1	The organization establishes and maintains a documented policy for conducting its Performance Management activities.
	CO2	An organizational role(s) is assigned responsibility for assisting and advising units on Performance Management activities.
	AB1	Within each unit, an individual(s) is assigned responsibility and authority for ensuring that Performance Management activities are performed.
	AB2	Adequate resources are provided for performing Performance Management activities.
	AB3	Individuals conducting Performance Management activities receive the preparation needed to perform their responsibilities.
	AB4	Individuals who participate in Performance Management activities receive appropriate orientation in Performance Management practices.
	ME1	Measurements are made and used to determine the status and performance of Performance Management activities.
	ME2	Unit measures of Performance Management activities are collected and maintained.
	VE1	A responsible individual(s) verifies that the Performance Management activities are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2	Executive management periodically reviews the Performance Management activities, status, and results; and resolves issues.

Practice-to-Goal Mappings

Training and Development

The purpose of Training and Development is to ensure that all individuals have the skills required to perform their assignments and are provided relevant development opportunities.

TRAINING AND DEVELOPMENT	
Goal 1 Individuals receive timely training that is needed to perform their assignments in accordance with the unit's training plan.	P1 In each unit, the critical skills required for performing each individual's assigned tasks are identified.
	P2 Training needed in critical skills is identified for each individual.
	P3 Each unit develops and maintains a plan for satisfying its training needs.
	P4 Individuals or groups receive timely training needed to perform their assigned tasks.
	P5 Training is tracked against the unit's training plan.
Goal 2 Individuals capable of performing their assignments pursue development opportunities that support their development objectives.	P6 A development discussion is held periodically with each individual.
	P7 Relevant development opportunities are made available to support individuals in accomplishing their individual development objectives.
	P8 Individuals pursue development activities that support their individual development objectives.

TRAINING AND DEVELOPMENT

Goal 3 Training and Development practices are institutionalized to ensure they are performed as managed processes.	CO1 The organization establishes and maintains a documented policy for conducting its Training and Development activities.
	CO2 An organizational role(s) is assigned responsibility for assisting and advising units on Training and Development activities and procedures.
	AB1 Within each unit, an individual(s) is assigned responsibility and authority for ensuring that Training and Development activities are performed.
	AB2 Adequate resources are provided for performing Training and Development activities.
	AB3 Training time is made available to each individual according to the organization's training policy.
	AB4 Individuals performing Training and Development activities receive the preparation needed to perform their responsibilities.
	ME1 Measurements are made and used to determine the status and performance of Training and Development activities.
	ME2 Unit measures of Training and Development activities are collected and maintained.
	VE1 A responsible individual(s) verifies that Training and Development activities are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews the Training and Development activities, status, and results; and resolves issues.

Practice-to-Goal Mappings

Compensation

The purpose of Compensation is to provide all individuals with remuneration and benefits based on their contribution and value to the organization.

COMPENSATION	
Goal 1 Compensation strategies and activities are planned, executed, and communicated.	P1 An organizational compensation strategy is developed.
	P2 The organization's compensation strategy is periodically reviewed to determine whether it needs to be revised.
	P3 When appropriate, the workforce provides inputs for developing or revising components of the organization's compensation strategy.
	P4 A documented compensation plan is prepared periodically for administering compensation activities needed to execute the compensation strategy.
	P6 The organization's compensation strategy is communicated to the workforce.
Goal 2 Compensation is equitable relative to skill, qualifications, and performance.	P5 The compensation plan is designed to maintain equity in administering the compensation strategy.
	P10 Responsible individuals periodically review compensation packages for those whose compensation they administer to ensure they are equitable and consistent with the organization's compensation policy, strategy, and plan.
	P11 Action is taken to correct inequities in compensation or other deviations from the organization's policy, strategy, and plan.
Goal 3 Adjustments in compensation are made based on defined criteria.	P7 Each individual's compensation package is determined using a documented procedure that is consistent with the organization's compensation policy, strategy, and plan.
	P8 Compensation adjustments are made based, in part, on each individual's documented accomplishments against their performance objectives.
	P9 Decisions regarding an individual's compensation package are communicated to the individual.

COMPENSATION	
Goal 4 Compensation practices are institutionalized to ensure they are performed as managed processes.	CO1 The organization establishes and maintains a documented policy for conducting its Compensation activities.
	CO2 An organizational role(s) is assigned responsibility for performing or coordinating Compensation practices at the organizational level and for assisting and advising units on Compensation activities.
	AB1 Within each unit, an individual(s) is assigned responsibility and authority for ensuring that Compensation activities are performed.
	AB2 Adequate resources are provided for Compensation activities.
	AB3 Individuals performing Compensation activities receive the preparation needed to perform their responsibilities.
	ME1 Measurements are made and used to determine the status and performance of Compensation activities.
	ME2 Unit measures of Compensation activities are collected and maintained.
	ME3 Aggregate trends in compensation activities and decisions are measured and reviewed on a recurring basis.
	VE1 A responsible individual(s) verifies that Compensation activities are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews the Compensation activities, status, and results; and resolves issues.

Practice-to-Goal Mappings

Competency Analysis

The purpose of Competency Analysis is to identify the knowledge, skills, and process abilities required to perform the organization's business activities so that they may be developed and used as a basis for workforce practices.

COMPETENCY ANALYSIS	
Goal 1 The workforce competencies required to perform the organization's business activities are defined and updated.	P1 The workforce competencies required to perform the organization's business activities are identified.
	P2 Each of the organization's workforce competencies is analyzed to identify the knowledge, skills, and process abilities that compose it.
	P3 Workforce competency descriptions are documented and maintained according to a documented procedure.
	P4 Workforce competency descriptions are updated on a periodic and event-driven basis.
Goal 2 The work processes used within each workforce competency are established and maintained.	P5 The competency-based processes to be performed by capable individuals in each workforce competency are established and maintained.
	P6 Information about the use of competency-based processes is captured and made available.
Goal 3 The organization tracks its capability in each of its workforce competencies.	P7 Competency information regarding the capabilities of individuals in their workforce competencies is collected and maintained according to a documented procedure.
	P8 Current resource profiles for each of the organization's workforce competencies are determined.
	P9 Competency information is updated on a periodic and event-driven basis.

COMPETENCY ANALYSIS	
Goal 4 Competency Analysis practices are institutionalized to ensure they are performed as defined organizational processes.	CO1 The organization establishes and maintains a documented policy for conducting its Competency Analysis activities.
	CO2 An organizational role(s) is assigned responsibility for coordinating Competency Analysis activities across the organization.
	AB1 A responsible individual(s) coordinates the Competency Analysis activities for defining, developing, and maintaining each workforce competency.
	AB2 Adequate resources are provided for performing Competency Analysis activities.
	AB3 Individuals performing Competency Analysis activities develop the knowledge, skills, and process abilities needed to perform their responsibilities.
	AB4 The practices and procedures for performing Competency Analysis are defined and documented.
	ME1 Measurements are made and used to determine the status and performance of Competency Analysis activities within each unit and across the organization.
	ME2 Measurements are made and used to determine the quality of workforce competency descriptions and competency information.
	VE1 A responsible individual(s) verifies that Competency Analysis activities are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews the Competency Analysis activities, status, and results; and resolves issues.
	VE3 The definition and use of competency descriptions and competency information are periodically audited for compliance with organizational policies.

Practice-to-Goal Mappings

Workforce Planning

The purpose of Workforce Planning is to coordinate workforce activities with current and future business needs at both the organizational and unit levels.

WORKFORCE PLANNING			
Goal 1	Measurable objectives for capability in each of the organization's workforce competencies are defined.	P1	The current and strategic workforce needs of the organization are documented.
		P2	Measurable objectives are established for developing the organization's capability in each of its selected workforce competencies.
Goal 2	The organization plans for the workforce competencies needed to perform its current and future business activities.	P3	A competency development plan is produced for each of the organization's selected workforce competencies.
		P4	Competency development plans are reviewed and revised on a periodic and event-driven basis.
		P5	The organization establishes and maintains a strategic workforce plan to guide its workforce practices and activities.
		P8	The organization develops succession plans for its key positions.
		P9	The organization's performance in meeting the objectives of its strategic workforce plan is tracked.
Goal 3	Units perform planned workforce activities to satisfy current and strategic competency needs.	P10	Progress in meeting the objectives of the competency development plan for each of the organization's workforce competencies is tracked.
		P6	Units plan workforce activities to satisfy current and strategic competency needs.
		P7	Units review and revise plans for workforce activities on a periodic and event-driven basis.
		P11	Each unit's performance in conducting its planned workforce activities is tracked.

WORKFORCE PLANNING	
Goal 4 Workforce Planning practices are institutionalized to ensure they are performed as defined organizational processes.	CO1 The organization establishes and maintains a documented policy for conducting its Workforce Planning activities.
	CO2 An organizational role(s) is assigned responsibility for coordinating Workforce Planning activities across the organization.
	AB1 Within each unit, an individual(s) is assigned responsibility and authority for ensuring that Workforce Planning activities are performed.
	AB2 A responsible individual(s) coordinates the Workforce Planning activities for each workforce competency.
	AB3 Adequate resources are provided for performing Workforce Planning activities.
	AB4 Individuals performing Workforce Planning activities develop the knowledge, skills, and process abilities needed to perform their responsibilities.
	AB5 The practices and procedures for performing Workforce Planning are defined and documented.
	ME1 Measurements are made and used to determine the status and performance of Workforce Planning activities.
	ME2 Unit measures of workforce planning are collected and aggregated at the organizational level.
	VE1 A responsible individual(s) verifies that Workforce Planning activities are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews the Workforce Planning activities, status, and results; and resolves issues.

Practice-to-Goal Mappings

Competency Development

The purpose of Competency Development is to constantly enhance the capability of the workforce to perform their assigned tasks and responsibilities.

COMPETENCY DEVELOPMENT	
Goal 1 The organization provides opportunities for individuals to develop their capabilities in its workforce competencies.	P1 Competency development activities are based on the competency development plans within each workforce competency.
	P2 Graduated training and development activities are established and maintained for developing capability in each of the organization's workforce competencies.
	P3 The organization makes available descriptions of workforce competencies and information about development opportunities related to them.
Goal 2 Individuals develop their knowledge, skills, and process abilities in the organization's workforce competencies.	P4 Competency-based training and development activities are identified for each individual to support their development objectives.
	P5 Individuals actively pursue learning opportunities to enhance their capabilities in the organization's workforce competencies.
Goal 3 The organization uses the capabilities of its workforce as resources for developing the workforce competencies of others.	P6 Capable individuals within a competency community are used to mentor those with less capability in the competency.
	P7 The organization supports communication among those comprising a competency community.
	P8 Competency-based experience and information is captured and made available to those within a competency community.

COMPETENCY DEVELOPMENT	
Goal 4 Competency Development practices are institutionalized to ensure they are performed as defined organizational processes.	CO1 The organization establishes and maintains a documented policy for conducting its Competency Development activities to develop the core competencies required to perform its business processes.
	CO2 An organizational role(s) is assigned responsibility for coordinating Competency Development activities across the organization.
	AB1 Within each unit, an individual(s) is assigned responsibility and authority for ensuring that Competency Development activities are performed.
	AB2 A responsible individual(s) coordinates the Competency Development activities for each workforce competency.
	AB3 Adequate resources are provided for performing the planned organization-wide and unit-specific Competency Development activities.
	AB4 Individuals performing Competency Development activities develop the knowledge, skills, and process abilities needed to perform their responsibilities.
	AB5 Individuals who participate in Competency Development activities receive appropriate orientation in Competency Development practices.
	AB6 The practices and procedures for performing Competency Development are defined and documented.
	ME1 Measurements are made and used to determine the status and performance of Competency Development activities within each unit and across the organization.
	ME2 Measurements are made and used to determine the quality of Competency Development activities.
	VE1 A responsible individual(s) verifies that Competency Development activities are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews the Competency Development activities, status, and results; and resolves issues.
	VE3 The definition and use of data on competency development are periodically audited for compliance with organizational policies.

Practice-to-Goal Mappings

Career Development

The purpose of Career Development is to ensure that individuals are provided opportunities to develop workforce competencies that enable them to achieve career objectives.

CAREER DEVELOPMENT	
Goal 1 The organization offers career opportunities that provide growth in its workforce competencies.	P1 The organization defines graduated career opportunities to support growth in the workforce competencies required to perform its business activities.
	P2 Career promotions are made in each area of graduated career opportunities based on documented criteria and procedures.
	P3 Graduated career opportunities and promotion criteria are periodically reviewed and updated.
Goal 2 Individuals pursue career opportunities that increase the value of their knowledge, skills, and process abilities to the organization.	P4 Affected individuals periodically evaluate their capabilities in the workforce competencies relevant to their career objectives.
	P5 Affected individuals create and maintain a personal development plan to guide their training and career options.
	P6 Career options and development in the organization's workforce competencies are discussed with affected individuals on a periodic or event-driven basis.
	P7 Affected individuals pursue training and development opportunities that enhance their career options and capabilities in the organization's workforce competencies.
	P8 Individual development activities are tracked against personal development plans.

CAREER DEVELOPMENT		
Goal 3 Career Development practices are institutionalized to ensure they are performed as defined organizational processes.	CO1	The organization establishes and maintains a documented policy for conducting its Career Development activities.
	CO2	An organizational role(s) is assigned responsibility for coordinating Career Development activities across the organization.
	AB1	Within each unit, an individual(s) is assigned responsibility and authority for ensuring that members of the unit participate, as appropriate, in Career Development activities.
	AB2	A responsible individual(s) coordinates the Career Development activities for each workforce competency.
	AB3	Adequate resources are provided for implementing Career Development activities.
	AB4	Individuals responsible for Career Development activities develop the knowledge, skills, and process abilities needed to perform their responsibilities.
	AB5	Individuals who participate in Career Development activities receive appropriate orientation in career development opportunities and activities.
	AB6	The practices and procedures for performing Career Development are defined and documented.
	ME1	Measurements are made and used to determine the status and performance of Career Development activities within each unit.
	ME2	Unit measures of Career Development status are collected and aggregated at the organizational level.
	ME3	Measurements are made and used to determine the effectiveness of Career Development activities.
	VE1	A responsible individual(s) verifies that Career Development activities are conducted according to the organization's documented policies, practices, and procedures; and addresses noncompliance.
	VE2	Executive management periodically reviews the Career Development activities, status, and results; and resolves issues.

Practice-to-Goal Mappings

Competency-Based Practices

The purpose of Competency-Based Practices is to ensure that all workforce practices are based in part on developing the competencies of the workforce.

COMPETENCY-BASED PRACTICES	
Goal 1 Workforce practices are focused on increasing the organization's capability in its workforce competencies.	P1 Recruiting activities are planned and executed to satisfy the organization's requirements for workforce competencies.
	P2 Selection processes are enhanced to evaluate each candidate's potential for contributing to organizational and unit objectives for capability in workforce competencies.
	P3 Staffing decisions are made, in part, to achieve the competency development objectives of the organization and the career objectives of qualified candidates.
	P4 Transition activities provide orientation to workforce competencies.
	P14 As the definition or requirements of its workforce competencies change, the organization re-evaluates its workforce policies and practices and adjusts them, as needed.
Goal 2 Workforce activities within units encourage and support individuals and workgroups in developing and applying the organization's workforce competencies.	P5 Work assignments are designed, in part, to enhance personal and career development objectives.
	P6 Each unit documents performance objectives for developing workforce competencies.
	P7 Each individual documents performance objectives for developing additional capability in the organization's workforce competencies.
	P8 Ongoing discussions of work performance include feedback on an individual's development and application of relevant workforce competencies.
	P9 Each individual's performance is assessed, in part, against the objectives of their personal development plan.
Goal 3 Compensation strategies and recognition and reward practices are designed to encourage development and application of the organization's workforce competencies.	P10 The compensation strategy is established and maintained, in part, to increase the organization's capability in its workforce competencies.
	P11 Compensation practices are defined to support capability objectives within each workforce competency.
	P12 Adjustments to compensation are partly determined by each individual's development and application of relevant workforce competencies.
	P13 Recognition and rewards for developing or applying workforce competencies are provided, when appropriate, at the individual, workgroup, or unit levels.

COMPETENCY-BASED PRACTICES

Goal 4 Competency-Based Practices are institutionalized to ensure they are performed as defined organizational processes.	CO1 Relevant organizational policies promote increased capability in the organization's workforce competencies.
	CO2 An organizational role(s) is assigned responsibility for coordinating adjustments in workforce practices designed to increase the organization's capability in its workforce competencies.
	AB1 Within each unit, an individual(s) is assigned responsibility and authority for ensuring that workforce practices and activities are designed to motivate individuals and workgroups to develop and apply workforce competencies.
	AB2 A responsible individual(s) coordinates the competency-based practices and activities for each workforce competency.
	AB3 Adequate resources are provided for ensuring that workforce practices and activities are designed to increase the organization's capability in its workforce competencies.
	AB4 Those responsible for competency-based workforce activities develop the knowledge, skills, and process abilities needed to perform their responsibilities.
	AB5 The practices and procedures for performing competency-based workforce practices are defined and documented.
	ME1 Measurements are made and used to determine the status and performance of workforce practices to increase capability in the organization's workforce competencies.
	ME2 Measurements are made and used to determine how effectively competency-based workforce practices are increasing capability in the organization's workforce competencies.
	VE1 A responsible individual(s) verifies that competency-based workforce practices are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews the activities implementing competency-based workforce practices, their status and results, and resolves issues.

Practice-to-Goal Mappings

Workgroup Development

The purpose of Workgroup Development is to organize work around competency-based process abilities.

WORKGROUP DEVELOPMENT	
Goal 1 Workgroups are established to optimize the performance of interdependent work.	P1 The committed work within a unit is analyzed to identify its process dependencies.
	P2 Committed work is structured to optimize the coordination and performance of interdependent work within workgroups.
	P3 Each workgroup is formed to perform a defined set of business activities and to accomplish defined objectives.
Goal 2 Workgroups tailor defined processes and roles for use in planning and performing their work.	P4 Methods and procedures for performing common workgroup functions are defined and maintained for use by workgroups.
	P7 Workgroups tailor competency-based processes for performing their business activities.
	P8 Roles for performing the workgroup's operating processes are defined and allocated to individuals.
	P10 Workgroup members establish mechanisms for communicating information and coordinating dependencies among roles.
	P11 Skills needed to perform jointly as a workgroup using the workgroup's operating processes are developed.
	P12 Workgroups that share dependencies define interfaces through which their activities and commitments are coordinated.
Goal 3 Workgroup staffing activities focus on the assignment, development, and future deployment of the organization's workforce competencies.	P5 The competencies required to perform a workgroup's business activities are identified.
	P6 Staffing processes are performed to ensure that workgroups are staffed with individuals whose competencies match those needed to perform the workgroup's business activities.
	P14 Workgroups are disbanded through an orderly performance of workforce activities.
Goal 4 Workgroup performance is managed against documented objectives for committed work.	P9 Workgroup activities and commitments are planned.
	P13 A responsible individual(s) tracks and manages workgroup performance.
	P15 When workgroups disband, their assets are captured for redeployment.

WORKGROUP DEVELOPMENT

Goal 5 Workgroup Development practices are institutionalized to ensure they are performed as defined organizational processes.	CO1 The organization establishes and maintains a documented policy for conducting Workgroup Development activities.
	CO2 An organizational role(s) is assigned responsibility for coordinating Workgroup Development activities across the organization.
	CO3 Workgroup Development activities are incorporated into the organization's strategic workforce plan and the planned workforce activities within units.
	AB1 Within each unit, an individual(s) is assigned responsibility and authority for ensuring that members of the unit participate in Workgroup Development activities, as appropriate.
	AB2 Adequate resources are provided for performing Workgroup Development activities.
	AB3 Responsible individual(s) to whom the members of a workgroup are accountable develop the knowledge, skills, and process abilities needed to manage workgroups.
	AB4 Workgroup members receive appropriate guidance or training in workgroup skills.
	AB5 The practices and procedures for performing Workgroup Development are defined and documented.
	ME1 Measurements are made and used to determine the status and performance of Workgroup Development activities across the organization.
	ME2 Measures of workgroup development are collected and aggregated at the organizational level.
	ME3 Measurements are made and used to determine the effectiveness of Workgroup Development activities.
	VE1 A responsible individual(s) verifies that Workgroup Development activities are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews the Workgroup Development activities, status, and results; and resolves issues.

Practice-to-Goal Mappings

Participatory Culture

The purpose of a Participatory Culture allows the organization to exploit the full capability of the workforce for making decisions that affect the performance of business activities.

PARTICIPATORY CULTURE	
Goal 1 Information about business activities and results is communicated throughout the organization.	P1 Information about organizational and unit performance is made available to individuals and workgroups.
	P2 Individuals and workgroups are made aware of how their work performance contributes to unit and organizational performance.
	P3 Individuals and workgroups have access to information needed to perform their committed work.
	P4 Information and communication systems support the information needs of individuals and workgroups.
Goal 2 Decisions are delegated to an appropriate level of the organization.	P5 The structure of decision-making processes within the organization is analyzed.
	P6 Decision-making processes and roles are defined.
	P7 Responsibilities for decisions are delegated to appropriate levels and locations in the organization.
	P9 Decisions made by those empowered to make them are supported by others in the organization.
Goal 3 Individuals and workgroups participate in structured decision-making processes.	P8 Individuals and workgroups use defined decision-making processes.
	P10 Individuals and workgroups are involved in making decisions that affect their work.
	P11 Individuals and groups participate in decisions concerning their work environments.
	P12 Defined mechanisms are used for resolving conflicts and disputes.

PARTICIPATORY CULTURE	
Goal 4 Participatory Culture practices are institutionalized to ensure they are performed as defined organizational processes.	CO1 The organization's stated values encourage open communication and participation in decision making by individuals and workgroups, when appropriate.
	CO2 The organization establishes and maintains a documented policy for its activities that supports the development of a participatory culture.
	CO3 An organizational role(s) is assigned responsibility for coordinating the organization's activities for developing a participatory culture.
	AB1 Within each unit, an individual(s) is assigned responsibility and authority to ensure that the performance of business and workforce activities within the unit contributes to developing a participatory culture.
	AB2 Adequate resources are provided for performing activities that support development of a participatory culture.
	AB3 Managers develop the knowledge, skills, and process abilities needed to perform their responsibilities regarding communication and participatory management.
	AB4 Individuals and groups who participate in Participatory Culture activities receive the preparation in problem-solving and decision-making processes, methods, and skills appropriate to the types of decisions they will participate in making.
	AB5 The practices and procedures for developing a participatory culture are defined and documented.
	ME1 Measurements are made and used to determine the status and performance of participatory activities and trends within the organization.
	ME2 Measurements are made and used to determine the effectiveness of the participatory practices adopted in the organization.
	VE1 A responsible individual(s) verifies that communication and decision-making activities within the organization are conducted in an open and participative manner according to the organization's values and policies; and addresses noncompliance.
	VE2 Executive management periodically reviews the level of participatory behavior and resolves issues.

Practice-to-Goal Mappings

Competency Integration

The purpose of Competency Integration is to improve the efficiency and agility of interdependent work by integrating the process abilities of different workforce competencies.

COMPETENCY INTEGRATION	
Goal 1 The competency-based processes employed by different workforce competencies are integrated to improve the efficiency of interdependent work.	P1 Business activities involving dependencies among multiple workforce competencies are identified.
	P2 Dependencies and interfaces among multiple workforce competencies are analyzed to identify opportunities for integrating their competency-based processes.
	P3 Integrated competency-based processes are defined and made available for use.
	P12 The performance of integrated competency-based processes is evaluated to identify needed adjustments and updates.
Goal 2 Integrated competency-based processes are used in performing work that involves dependencies among several workforce competencies.	P4 Work is designed to incorporate integrated competency-based processes, where appropriate.
	P6 Skills needed for performing integrated competency-based processes are developed.
	P10 Workgroups performing integrated competency-based processes tailor and use them for planning committed work.
	P11 Workgroups use integrated competency-based processes for work involving multiple workforce competencies.
Goal 3 Workforce practices are designed to support multi-disciplinary work.	P5 Organizational structures support multi-disciplinary work that integrates competency-based processes.
	P7 The work environment supports work by individuals or workgroups using integrated competency-based processes.
	P8 Workforce competency descriptions are revised to incorporate integrated competency-based processes.
	P9 Workforce practices and activities are defined and adjusted to support integrated competency-based activities.

COMPETENCY INTEGRATION	
Goal 4 Competency Integration practices are institutionalized to ensure they are performed as defined organizational processes.	CO1 The organization establishes and maintains a documented policy for conducting Competency Integration activities.
	CO2 An organizational role(s) is assigned responsibility for coordinating Competency Integration activities across the organization.
	AB1 Within relevant organizational units or other entities, an individual(s) is assigned responsibility and authority for ensuring that Competency Integration activities are performed.
	AB2 A responsible individual(s) coordinates the activities for defining, developing, and maintaining each integrated competency-based process.
	AB3 Adequate resources are provided for performing Competency Integration activities.
	AB4 Those involved in defining integrated competency-based processes develop the knowledge, skills, and process abilities needed to perform process analysis and definition.
	AB5 Affected individuals and workgroups develop the knowledge, skills, and process abilities needed to perform the integrated competency-based processes involved in their work.
	AB6 The practices and procedures for performing Competency Integration are defined and documented.
	ME1 Measurements are made and used to determine the status and performance of Competency Integration activities.
	ME2 Measurements are made and used to determine the effectiveness of Competency Integration activities.
	VE1 A responsible individual(s) verifies that the Competency Integration activities are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews the Competency Integration activities, status, and results; and resolves issues.

Practice-to-Goal Mappings

Empowered Workgroups

The purpose of Empowered Workgroups is to invest workgroups with the responsibility and authority for determining how to conduct their business activities most effectively.

EMPOWERED WORKGROUPS	
Goal 1 Empowered workgroups are delegated responsibility and authority over their work processes.	P1 Work responsibilities are designed to provide an empowered workgroup with optimal control over an integrated set of business activities.
	P2 Empowered workgroups are formed with a statement of their mission and authority for accomplishing it.
	P3 The individual(s) or organizational entity to which an empowered workgroup is accountable provides business objectives and negotiates responsibilities and commitments with the empowered workgroup.
	P4 Empowered workgroups are delegated the responsibility and authority to determine the methods by which they will accomplish their committed work.
	P5 Empowered workgroups use appropriate methods for making decisions on their commitments and methods of operation.
Goal 2 The organization's workforce practices and activities encourage and support the development and performance of empowered workgroups.	P6 The organization's work environment supports the development and performance of empowered workgroups.
	P7 The organization's workforce practices are tailored for use with empowered workgroups.
	P12 Adjustments to the compensation of members of empowered workgroups are based, in part, on issues related to workgroup performance.
Goal 3 Empowered workgroups perform selected workforce practices internally.	P8 Responsibility and authority for performing selected workforce activities is delegated to empowered workgroups.
	P9 Empowered workgroups tailor workforce activities delegated to them and plan for their adoption.
	P10 Empowered workgroups perform the workforce activities delegated to them.
	P11 Empowered workgroups participate in managing their performance.

EMPOWERED WORKGROUPS	
Goal 4 Empowered Workgroups practices are institutionalized to ensure they are performed as defined organizational processes.	CO1 The organization establishes and maintains a documented policy for conducting Empowered Workgroups activities.
	CO2 An organizational role(s) is assigned responsibility for coordinating empowerment activities and tailoring workforce practices to support empowered workgroups.
	AB1 Each empowered workgroup has an individual(s) or organizational entity that is assigned responsibility as its sponsor and to whom it is accountable.
	AB2 Adequate resources are provided for performing Empowered Workgroups activities.
	AB3 All affected parties develop the knowledge, skills, and process abilities needed to develop effective relationships with empowered workgroups.
	AB4 Individuals responsible for tailoring or administering workforce practices for empowered workgroups develop the knowledge, skills, and process abilities needed to perform their responsibilities.
	AB5 The practices and procedures for performing Empowered Workgroups are defined and documented.
	ME1 Measurements are made and used to determine the status and performance of workforce practices for empowering workgroups.
	ME2 Measurements are made and used to determine the effectiveness of workforce practices for empowering workgroups.
	VE1 A responsible individual(s) verifies that the organization's workforce practices for empowering workgroups are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews the organization's Empowered Workgroups activities, status, and results; and resolves issues.
	VE3 The definition and use of empowered workgroup performance data are periodically audited for compliance with organizational policies.

Practice-to-Goal Mappings

Competency-Based Assets

The purpose of Competency-Based Assets is to capture the knowledge, experience, and artifacts developed in performing competency-based processes for use in enhancing competency and performance.

COMPETENCY-BASED ASSETS	
Goal 1 The knowledge, experience, and artifacts resulting from performing competency-based processes are developed into competency-based assets.	P1 Individuals and workgroups capture and retain information and artifacts that emerge from performing competency-based processes.
	P2 Communication vehicles are established to support the sharing of competency-based information and artifacts within and among competency communities.
	P3 A strategy for developing and deploying competency-based assets is created for each affected workforce competency.
	P4 Selected components of competency-based information and artifacts are organized into competency-based assets and made available for use.
	P5 Competency-based assets are updated to reflect periodic revisions in the knowledge, skills, and process abilities constituting workforce competencies.
Goal 2 Competency-based assets are deployed and used.	P6 Competency-based assets are integrated into competency-based processes and related technologies, as appropriate.
	P7 Individuals and workgroups use competency-based assets in performing their business activities.
	P8 Information resulting from the use of competency-based assets is captured and made available.
Goal 3 Workforce practices and activities encourage and support the development and use of competency-based assets.	P9 Competency development activities incorporate competency-based assets.
	P10 Mentoring or coaching activities are organized to deploy competency-based assets.
	P11 Workforce practices and activities encourage and support the development and use of competency-based assets.
	P12 Compensation practices and activities are defined and performed to motivate the development and use of competency-based assets.

COMPETENCY-BASED ASSETS	
Goal 4 Competency-Based Assets activities are institutionalized to ensure they are performed as defined organizational processes.	CO1 The organization's stated values encourage knowledge sharing between individuals and workgroups, when appropriate.
	CO2 The organization establishes and maintains a documented policy for developing and using competency-based assets.
	CO3 An organizational role(s) is assigned responsibility for coordinating across the organization the activities involved in capturing and reusing competency-based assets.
	AB1 Within each unit, an individual(s) is assigned responsibility and authority for ensuring that members of the unit participate in capturing and using competency-based assets, as appropriate.
	AB2 A responsible individual(s) coordinates the activities for capturing and using competency-based assets within each workforce competency.
	AB3 Adequate resources are provided for capturing and using competency-based assets.
	AB4 Those responsible for various tasks involved in developing and deploying the organization's competency-based assets develop the knowledge, skills, and process abilities needed to perform their responsibilities.
	AB5 Individuals involved in capturing or using competency-based assets develop the knowledge, skills, and process abilities needed to perform their responsibilities.
	AB6 The practices and procedures for capturing or using competency-based assets are defined and documented.
	ME1 Measurements are made and used to determine the status and performance of activities for contributing to and using competency-based assets.
	ME2 Measurements are made and used to determine the effectiveness of competency-based assets on improving competencies and performance.
	VE1 A responsible individual(s) verifies that the organization's activities for developing and using competency-based assets are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews the Competency-Based Assets activities, status, and results; and resolves issues.
	VE3 The definition and use of competency-based assets measures and information are periodically audited for compliance with organizational policies.

Practice-to-Goal Mappings

Quantitative Performance Management

The purpose of Quantitative Performance Management is to predict and manage the capability of competency-based processes for achieving measurable performance objectives.

QUANTITATIVE PERFORMANCE MANAGEMENT	
Goal 1 Measurable performance objectives are established for competency-based processes that most contribute to achieving performance objectives.	P1 The quantitative performance objectives required to achieve organizational business objectives are defined.
	P2 Each unit establishes measurable performance objectives whose achievement most contributes to organizational business objectives.
	P3 Individuals and workgroups establish measurable performance objectives for competency-based processes that most contribute to their achieving unit performance objectives.
Goal 2 The performance of competency-based processes is managed quantitatively.	P4 Individuals and workgroups plan their committed work using process performance baselines for competency-based processes.
	P5 Individuals and workgroups define quantitative methods for managing the competency-based processes that most contribute to achieving their performance objectives.
	P6 Individuals and workgroups quantitatively manage the performance of the competency-based processes that most contribute to achieving their performance objectives.
	P7 Individuals or workgroups take corrective actions when the performance of their competency-based processes differs from the quantitative results required to achieve their performance objectives.
	P8 Quantitative records of individual and workgroup performance are retained.
	P9 Where appropriate, quantitative performance results are used in performing workforce practices and activities.

QUANTITATIVE PERFORMANCE MANAGEMENT		
Goal 3 Quantitative Performance Management practices are institutionalized to ensure they are performed as defined organizational processes.	CO1	The organization establishes and maintains a documented policy for conducting Quantitative Performance Management activities.
	CO2	An organizational role(s) is assigned responsibility for coordinating Quantitative Performance Management activities across the organization.
	AB1	Within each unit, an individual(s) is assigned responsibility and authority for ensuring that Quantitative Performance Management activities are performed.
	AB2	Adequate resources are provided for performing Quantitative Performance Management activities.
	AB3	Individuals who participate in Quantitative Performance Management activities develop the knowledge, skills, and process abilities needed to perform their responsibilities.
	AB4	The practices and procedures for performing Quantitative Performance Management are defined and documented.
	ME1	Measurements are made and used to determine the status and performance of the organization's Quantitative Performance Management activities.
	ME2	Measurements are made and used to determine the effectiveness of Quantitative Performance Management activities.
	VE1	A responsible individual(s) verifies that Quantitative Performance Management activities are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2	Executive management periodically reviews the Quantitative Performance Management activities, status, and results; and resolves issues.
	VE3	The definition and use of performance measures at the individual, workgroup, and unit levels are periodically audited for compliance with the organization's policies.

Practice-to-Goal Mappings

Organizational Capability Management

The purpose of Organizational Capability Management is to quantify and manage the capability of the workforce and of the critical competency-based processes they perform.

ORGANIZATIONAL CAPABILITY MANAGEMENT	
Goal 1 Progress in developing the capability of critical workforce competencies is managed quantitatively.	P1 The organization identifies the workforce competencies that are critical to its business strategies and objectives.
	P2 The organization quantifies its capability in each of its critical workforce competencies.
	P3 The organization's capability in each of its critical workforce competencies is managed quantitatively.
Goal 2 The impact of workforce practices and activities on progress in developing the capability of critical workforce competencies is evaluated and managed quantitatively.	P4 Measurable objectives for contributing to capability growth in critical workforce competencies are established for workforce practices and activities.
	P5 The organization quantitatively evaluates the impacts of workforce practices and activities on capability in each of its critical workforce competencies.
	P6 The impacts of workforce practices and activities on the organization's capability in each of its critical workforce competencies are managed quantitatively.
Goal 3 The capabilities of competency-based processes in critical workforce competencies are established and managed quantitatively.	P7 Process performance baselines are developed and maintained for critical competency-based processes.
	P8 The capability of critical competency-based processes is managed quantitatively.
	P9 The organization uses its capability data and process performance baselines in developing quantitative models of performance.
Goal 4 The impact of workforce practices and activities on the capabilities of competency-based processes in critical workforce competencies is evaluated and managed quantitatively.	P10 The impact of workforce practices and activities on the capability and performance of competency-based processes is evaluated and managed quantitatively.
	P11 Evaluations of the impact of workforce practices and activities on the capability and performance of competency-based processes are used in performing other business and workforce activities, as appropriate.

ORGANIZATIONAL CAPABILITY MANAGEMENT		
Goal 5 Organizational Capability Management practices are institutionalized to ensure they are performed as defined organizational processes.	CO1	The organization establishes and maintains a documented policy for conducting Organizational Capability Management activities.
	CO2	An organizational role(s) is assigned responsibility for coordinating Organizational Capability Management activities across the organization.
	AB1	Within each unit, an individual(s) is assigned responsibility and authority for ensuring the unit's involvement in Organizational Capability Management activities, as appropriate.
	AB2	A responsible individual(s) coordinates the quantitative capability management activities within each critical workforce competency.
	AB3	Adequate resources are provided for performing Organizational Capability Management activities.
	AB4	Those responsible for Organizational Capability Management activities develop the knowledge, skills, and process abilities needed to perform their responsibilities.
	AB5	Individuals who participate in Organizational Capability Management activities receive appropriate orientation in the purposes and methods for the organization's quantitative capability management activities.
	AB6	The practices and procedures for performing Organizational Capability Management are defined and documented.
	ME1	Measurements are made and used to determine the status and performance of Organizational Capability Management activities.
	ME2	Measurements are made and used to determine the effectiveness of Organizational Capability Management activities.
	VE1	A responsible individual(s) verifies that Organizational Capability Management activities are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2	Executive management periodically reviews the Organizational Capability Management activities, status, and results; and resolves issues.
	VE3	The definition and use of measures at the individual, workgroup, and unit levels are periodically audited for compliance with organizational policies.

Practice-to-Goal Mappings

Mentoring

The purpose of Mentoring is to transfer the lessons of greater experience in a workforce competency to improve the capability of other individuals or workgroups.

MENTORING	
Goal 1 Mentoring programs are established and maintained to accomplish defined objectives.	P1 Opportunities for using the experience of the workforce to improve performance or achieve other organizational objectives are identified.
	P2 The objectives and structure of each mentoring program are defined.
	P3 Each mentoring program is communicated to affected individuals and workgroups.
	P8 Mentors support the development and improvement of competency-based assets.
	P10 The organization's workforce practices support mentoring activities, as needed.
Goal 2 Mentors provide guidance and support to individuals or workgroups.	P4 Mentors are selected and matched with individuals or workgroups to be mentored.
	P5 Mentors and those they mentor establish a mentoring relationship.
	P6 Mentors assist individuals or workgroups in developing capability in workforce competencies.
	P7 Mentoring relationships are reviewed to ensure that they satisfy their intended objectives.
	P9 Mentors participate in performance management and related workforce activities, as appropriate.

MENTORING	
Goal 3 Mentoring practices are institutionalized to ensure they are performed as defined organizational processes.	CO1 The organization establishes and maintains a documented policy for conducting Mentoring activities.
	CO2 An organizational role(s) is assigned responsibility for coordinating Mentoring activities across the organization.
	AB1 Within each unit, an individual(s) is assigned responsibility and authority for ensuring that members of the unit participate in Mentoring activities, as appropriate.
	AB2 Adequate resources are provided for performing Mentoring activities.
	AB3 Individuals selected to act as mentors develop the knowledge, skills, and process abilities needed in relevant mentoring objectives, techniques, and skills to perform their responsibilities.
	AB4 Affected individuals receive appropriate orientation in Mentoring practices.
	AB5 The practices and procedures for performing Mentoring are defined and documented.
	ME1 Measurements are made and used to determine the status and performance of Mentoring activities.
	ME2 Measurements are made and used to determine the effectiveness of Mentoring activities.
	VE1 A responsible individual(s) verifies that Mentoring activities are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews Mentoring activities, status, and results; and resolves issues.

Practice-to-Goal Mappings

Continuous Capability Improvement

The purpose of Continuous Capability Improvement is to provide a foundation for individuals and workgroups to continuously improve their capability for performing competency-based processes.

CONTINUOUS CAPABILITY IMPROVEMENT	
Goal 1 The organization establishes and maintains mechanisms for supporting continuous improvement of its competency-based processes.	P1 Individuals and workgroups are empowered to continuously improve their capability for performing competency-based processes.
	P10 Within each critical workforce competency, capability objectives are defined for critical competency-based processes.
	P11 Within each critical workforce competency, capability objectives for competency-based processes are compared to process performance baselines to identify improvement objectives.
	P15 The organization's workforce practices are adjusted, as needed, to accommodate continuous improvement activities by individuals and workgroups.
Goal 2 Individuals continuously improve the capability of their personal work processes.	P2 Individuals characterize the capability and performance of their personal work processes.
	P3 Individuals evaluate the capability of their personal work processes to identify opportunities for improvement.
	P4 Individuals establish measurable improvement objectives and plans for improving the capability of their personal work processes.
	P5 Individuals continuously improve the capability and performance of their personal work processes.
Goal 3 Workgroups continuously improve the capability of their workgroup's operating processes.	P6 Workgroups evaluate the capability and performance of their operating processes to identify opportunities for improvement.
	P7 Workgroups establish measurable objectives and plans for improving the capability of their operating processes.
	P8 Workgroups continuously improve their capability and performance.
Goal 4 The capabilities of competency-based processes are continuously improved.	P9 Recommendations resulting from improvements in personal work processes or workgroup operating processes are reviewed to determine if they should be incorporated into competency-based processes.
	P12 Within affected workforce competencies, responsible individuals identify opportunities for improving the capability and performance of competency-based processes.
	P13 Within selected workforce competencies, responsible individuals identify, evaluate, and select improvements to competency-based processes.
	P14 Selected improvement recommendations are incorporated into competency-based processes and made available for use.

CONTINUOUS CAPABILITY IMPROVEMENT	
Goal 5 Continuous Capability Improvement practices are institutionalized to ensure they are performed as defined organizational processes.	CO1 The organization establishes and maintains a documented policy for continuously improving individual and workgroup capability.
	CO2 An organizational role(s) is assigned responsibility for coordinating Continuous Capability Improvement activities across the organization.
	AB1 Within each unit, an individual(s) is assigned responsibility and authority for ensuring that members of the unit participate in Continuous Capability Improvement activities, as appropriate.
	AB2 Within selected workforce competencies, responsible individual(s) coordinate activities to improve its competency-based processes.
	AB3 Adequate resources are provided for continuously improving individual and workgroup capabilities.
	AB4 Mentoring support is offered to improve the capability and performance of individuals and workgroups.
	AB5 Individuals and workgroups develop the knowledge, skills, and process abilities needed to perform their responsibilities in applying techniques for continuously improving their capabilities.
	AB6 The practices and procedures for performing Continuous Competency Improvement are defined and documented.
	ME1 Measurements are made and used to determine the status and performance of activities for Continuous Capability Improvement.
	ME2 Measurements are made and used to determine the effectiveness of activities for Continuous Capability Improvement.
	VE1 A responsible individual(s) verifies that the activities for Continuous Capability Improvement are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews the Continuous Capability Improvement activities, status, and results; and resolves issues.

Practice-to-Goal Mappings

Organizational Performance Alignment

The purpose of Organizational Performance Alignment is to enhance the alignment of performance results across individuals, workgroups, and units with organizational performance and business objectives.

ORGANIZATIONAL PERFORMANCE ALIGNMENT			
Goal 1	The alignment of performance among individuals, workgroups, units, and the organization is continuously improved.	P1	Workgroups continuously improve the alignment of performance among individuals and across the workgroup.
		P2	Units align performance among individuals, workgroups, and other entities within the unit.
		P3	The organization aligns performance across units and with the organization's business objectives.
Goal 2	The impact of workforce practices and activities on aligning individual, workgroup, unit, and organizational performance is continuously improved.	P4	The impact of the organization's workforce practices and activities on aligning performance is understood quantitatively.
		P5	The impact of workforce practices and activities on performance alignment is managed quantitatively.
		P6	Evaluations of the impact of workforce practices and activities on performance alignment are used in performing other business and workforce activities.

ORGANIZATIONAL PERFORMANCE ALIGNMENT	
Goal 3 Organizational Performance Alignment practices are institutionalized to ensure they are performed as defined organizational processes.	CO1 The organization establishes and maintains a documented policy for aligning performance across individuals, workgroups, units, and the organization.
	CO2 An organizational role(s) is assigned responsibility for coordinating performance alignment activities across the organization.
	AB1 Within each unit, an individual(s) is assigned responsibility and authority for ensuring the unit's involvement in the organization's performance alignment activities.
	AB2 Adequate resources are provided for performing Organizational Performance Alignment activities.
	AB3 Individuals performing Organizational Performance Alignment activities develop the knowledge, skills, and process abilities needed to perform their responsibilities.
	AB4 Individuals and workgroups participating in Organizational Performance Alignment activities receive appropriate orientation in Organizational Performance Alignment practices.
	AB5 The practices and procedures for performing Organizational Performance Alignment are defined and documented.
	ME1 Measurements are made and used to determine the status and performance of the organization's performance alignment activities.
	ME2 Measurements are made and used to determine the effectiveness of the organization's performance alignment activities.
	VE1 A responsible individual(s) verifies that the organization's performance alignment activities are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews the organization's performance alignment activities, status, and results; and resolves issues.
	VE3 The definition and use of measures of individual, workgroup, unit, and organizational performance are periodically audited for compliance with organizational policies.

Practice-to-Goal Mappings

Continuous Workforce Innovation

The purpose of Continuous Workforce Innovation is to identify and evaluate improved or innovative workforce practices and technologies, and implement the most promising ones throughout the organization.

CONTINUOUS WORKFORCE INNOVATION	
Goal 1 The organization establishes and maintains mechanisms for supporting continuous improvement of its workforce practices and technologies.	P1 The organization establishes a framework for continuously improving its workforce practices and activities.
	P2 Individuals and workgroups are empowered to continuously improve their performance of workforce activities.
	P3 A continuous improvement program is established to encourage individuals and workgroups to propose improvements to workforce practices and activities.
	P6 Quantitative objectives are established for improving the impact of workforce practices and activities.
Goal 2 Innovative or improved workforce practices and technologies are identified and evaluated.	P4 Workforce opinions about their working conditions are periodically evaluated to identify areas that would most benefit from innovative or improved practices.
	P5 Data regarding the impact of the organization's workforce practices and activities are analyzed to identify areas that would most benefit from innovative or improved practices.
	P7 The organization continuously investigates innovative workforce practices and technologies.
	P8 Innovative and improved workforce practices and technologies are evaluated and selected for implementation.
	P9 When appropriate, innovative or improved workforce practices or technologies are evaluated in trials to evaluate their benefits and most effective methods for implementation.
Goal 3 Innovative or improved workforce practices and technologies are deployed using orderly procedures.	P10 The deployment of innovative or improved workforce practices or technologies is planned and prepared.
	P11 Innovative or improved workforce practices and technologies are implemented according to their deployment plans.
	P12 The effectiveness and benefits of innovative or improved workforce practices and technologies are evaluated quantitatively.
	P13 The status and results of the organization's Continuous Workforce Innovation activities are periodically reviewed and communicated across the organization.

CONTINUOUS WORKFORCE INNOVATION	
Goal 4 Continuous Workforce Innovation practices are institutionalized to ensure they are performed as defined organizational processes.	CO1 The organization establishes and maintains a documented policy for conducting Continuous Workforce Innovation activities.
	CO2 An organizational role(s) is assigned responsibility for coordinating the continuous innovation and improvement of workforce practices across the organization.
	AB1 Within each unit, a responsible individual(s) coordinates actions regarding proposals for improving workforce practices and activities and manages deployment of improvements or innovations.
	AB2 Adequate resources are provided for continuously improving workforce practices and activities.
	AB3 Those responsible for continuously innovating and improving workforce practices and activities develop the knowledge, skills, and process abilities needed to perform their responsibilities and to apply relevant evaluation methods and continuous improvement techniques.
	AB4 Individuals receive orientation or preparation in the innovative or improved workforce practices and technologies adopted by the organization.
	AB5 The practices and procedures for performing Continuous Workforce Innovation are defined and documented.
	ME1 Measurements are made and used to determine the status and performance of activities for continuously innovating and improving workforce practices and activities.
	ME2 Measurements are made and used to determine the effectiveness of continuously innovating and improving workforce practices and technologies.
	VE1 A responsible individual(s) verifies that the activities for continuously innovating and improving workforce practices are conducted according to the organization's documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.
	VE2 Executive management periodically reviews the Continuous Workforce Innovation activities, status, and results; and resolves issues.

Practice-to-Goal Mappings

Appendix E: Change History

Summary of Changes in Version 2 of the People CMM

Version 2 of the People CMM has been designed to correct known issues in Version 1, which was released in 1995; to add enhancements learned from five years of implementation experience; and to integrate the model better with CMMI and its IPPD extensions. The primary motivation for updating the People CMM was the error in Version 1 of placing team-building activities at Maturity Level 4. The authors made this placement based on substantial feedback that it should not be placed at Maturity Level 3, as it had been in early review releases. Experience has indicated that many organizations initiate formal development of workgroups while working toward Maturity Level 3. This, Version 2 of the People CMM initiates process-driven workgroup development at Maturity Level 3. This change is consistent with the placing of integrated teaming activities at Maturity Level 3 of the CMMI-IPPD.

In addition, the authors have made other improvements in Version 2 to bring the People CMM closer to its maturity framework roots in process-driven organizational improvement. An institutionalization goal has been added to each process area to better align the goal structure with that used in the CMMI. Many of these improvements will make it easier for organizations to integrate People CMM-based improvements with CMMI-based improvements.

Version 2 of the People CMM is being produced only in a staged representation. After lengthy review of the literature and experience gathered from implementers on programs to improve workforce practices, the authors determined that these programs often fail when workforce practices are not introduced as a system of practices or in reinforcing bundles, but rather are deployed in isolation. For instance, efforts to install empowered teams are likely to fail if compensation practices continue to reward individual performance without recognizing contribution to team performance and team success.

Change History

Change History of the People CMM

Date	Version	Change Description
August 1990	0.0	Conceptual model published [Curtis90].
October 1993	0.1	Version for review by Advisory Board.
November 1994	0.2	Draft for public review. Version 0.2 distributed to the P-CMM Correspondence Group for review and comments.
April 1995	0.3	Draft for public review. Version 0.3 distributed to the P-CMM Correspondence Group for review and comments.
September 1995	1.0	Baseline Version 1 for public release [Curtis 95].
August 1998	1.0	People CMM-Based Assessment Method Description, Version 1.0 released [Hefley 98].
January 2001	1.8	Draft of Version 2 for public review.
July 2001	2.0	Baseline Version 2 for public release [this document].

Change Request – People Capability Maturity Model	
Product: P-CMM V2.0	SEI Assigned Tracking Number: _____
Name of Submitting Organization:	
Organization Contact: _____	Telephone:
Mailing Address:	
Date: _____ Short Title:	
Change Location Tag: (use section #, figure #, key process area ID, practice ID, etc.)	
Proposed Change:	
Rationale for Change:	
<p>Note: For the SEI to take appropriate action on a change request, we must have a clear description of the recommended change, along with a supporting rationale.</p> <p>Send US mail to: P-CMM Change Requests, Software Process Program, Software Engineering Institute, Carnegie Mellon University, Pittsburgh, PA 15213-3890.</p> <p>Send packages to: P-CMM Change Requests, Software Process Program, Software Engineering Institute, Carnegie Mellon University, 4500 Fifth Avenue, Pittsburgh, PA 15213-2691.</p> <p>Send via Internet to: p-cmm-change@sei.cmu.edu</p>	

Change History
